Impressions OF AMERICAN SURGERY.

Being an Address delivered at University College Hospital, November 9th, 1874,

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GENTLEMEN,—I have been requested to give you an account of the impressions that I have formed of American Surgery and Surgical Institutions during my recent visit to the United States; and although I did not go amongst our Transatlantic brethren as "a chiel amang them takin' notes," and still less with any intention to "print 'em," but solely for recreation in my autumn holiday, yet I have no hesitation in complying with this request: partly because I believe that too little is known of American surgery in this country; and partly because the opportunity is thus afforded me, which might not otherwise occur, of publicly expressing my deep sense of the great honour that was conferred on me by the most flattering reception I met with from the medical profession collectively in every part of the Union that I visited. It would be unbecoming here to do more than allude to the many friendly and cordial acts of private hospitality that were extended to me by individual members of our profession, and which have left a deep and pleasing recollection in my mind. But I may, without restraint, express my acknowledgments to the profession in America for the warm and hospitable and hearty welcome that was given to me wherever I went, east or west, north or south, from New York to Chicago, from Boston through Philadelphia and Baltimore to Washington; and for the splendid hospitalities of which I was in most of these cities on several occasions the recipient, as the guest of institutions or of the general body of the profession. I can only explain the reception I thus met with—a reception unparalleled, I believe, in the social history of our profession—on the assumption that it was not to me individually that so much honour was intended to be done, but that a compliment was thus paid to the surgical profession of Great Britain, of which I was considered the representative, and which was thus honoured through one of its members by our American brethren. But I must leave these topics, agreeable as it may be for me to dwell upon them, and grateful as the recollections conjured up by allusions to them are, and proceed to tell you, in a few words, what my general impression is of the profession, the schools, and the hospitals of the United States.

And first, as to the Profession, I may at once say that it appears to me to occupy in America, relatively to the rest of the community, a far higher social status than it does in this country. The reason for this seems tolerably obvious. In the absence of an exalted hierarchy in an established church and of great dignitaries of the law, these professions do not offer sufficient inducement for men of the highest intellectual calibre to enter them. Medicine therefore stands prominent as probably the best-educated, certainly the most scientific, and consequently, in a country where education is so widely diffused and so much regarded, the most respected, of the professions. And in the absence of all titled classes, it can socially more than hold its own in competition with the trading and financial elements which are such prominent constituents of the society of most of the American cities. Perhaps, also, the high position that medicine occupies is owing, in some respect, to the greater uniformity of practice that prevails amongst medical men in America than with us. For, just as in the Law there is no division into barristers and solicitors, so in Medicine there is none into physicians, surgeons, and general practitioners. Special aptitude, inclination, or opportunity will necessarily lead men to a greater eminence in particular departments of the profession. But the subdivision into classes and specialties, which is so prevalent here, is unknown in the United States. With the exception of hospitals for diseases of women, I know of no special hospital in any of the large American towns; and I think that no better proof can be adduced of the inutility of the multiplication of these pseudo-charities, which are too often established in order to foster private gain under the flimsy shelter of that much-worn "cloak" which "covers a multitude of sins," than this fact, that in a population larger than that of Great Britain, with a numerous, highly educated, and active profession, it has not yet been found necessary to institute such establishments.

Surgery in the United States certainly stands at a very high level of excellence. The hospital surgeons throughout the country have struck me as being alike practical, progressive, and learned in a very high degree. In practical skill, and aptitude for mechanical appliances of all kinds, they are certainly excelled by no class of practitioners in any country. They are thoroughly up to modern surgery in its most progressive forms, and I have never met with any class of men who are so well read and so perfectly acquainted with all that is done in their profession outside their own country. It would be a great injustice to American surgeons for it to be supposed that surgical skill is confined to the large cities or to the few. On the contrary, I know no country in which, so far as it is possible to judge from contemporary medical literature, there is so widely diffused a high standard of operative skill as in the country districts and more remote provinces of the United States. The bent of the mind of the American surgeon is, like ours, practical rather than scientific; in fact, there are the same mental characteristics displayed in him that we find here—the same self-reliance, the same practical aptitude, the same *curative* instinct, which leads him to consider his patient rather as a human being to be rescued from the effects of disease or injury than as a scientific object to be studied for the advance of professional knowledge. How, indeed, can it be otherwise than that there should be such a resemblance? It is true that in travelling through America one is struck by the fact that there is a singular combination of the new and the old—of the strange and the familiar. That there are differences of a remarkable character between the New and the Old World there can be no doubt. I use the word "different" rather than "foreign," because I feel it impossible to apply the word "foreign" to anything American. There are differences in climate, differences in the physical configuration of the country. The verdure that clothes its hills and the vegetation that fertilises its plains are different from those that we meet with here; but man, in all his characteristics, is exactly the same. There appears to me, indeed, to be as great, if not a greater difference between the mental characteristics of an Englishman and some of the other inhabitants of Great Britain than there is between an ordinary Englishman and an American of the Atlantic cities. It may be truly said, though perhaps in a sense slightly different from that in which the poet used the words, that

> "Cœlum non animum mutant qui trans mare currunt."

Those who have crossed the great ocean have changed their clime, but not their characters.

The similarity that exists between American and British surgery, and which has struck me very forcibly, arises not only from the great resemblance that exists between the American and the English character, but from two other causes which have largely contributed to this end. The Art of Surgery is in a great measure traditional. The method of doing things in surgery is transmitted directly from the master to the pupil. The American surgeon of a past generation acquired in this way the traditionary art of British surgery, and has transmitted it directly to his descendants. Surgeons of both nations drew their inspiration from the same source and drank at the same fountain of knowledge. The names of Cooper and the Bells, of Liston and of Brodie, are as familiar to the ears of American surgeons as they are to those of this country. I was much struck when visiting the oldest hospital in the United States—the Pennsylvania General Hospital at Philadelphia—by seeing over the entrance to the operating theatre the portrait of a face that I had often seen delineated in this country. At first I thought it must be that of one of the American surgical worthies of a past generation—of Physick

or of Mott, of Warren or of Mutter; but on closer inspection I found that they were the well-known features of him who was in his generation *facile princeps* of British surgery—Sir Astley Cooper. Not only have British traditions thus penetrated deeply into the surgery of the United States, but the modern American surgeon derives his information from the same sources as does his British contemporary. THE LANCET is reprinted, and is as widely circulated in the States as in this country; and I find in my own case that my pupils in America are probably more numerous than those in Great Britain. One of the great advantages—and it is a very great one—that an English writer enjoys is that he addresses eighty millions of people, and that his works are not only disseminated throughout his own country, but, if of any value or importance, are eagerly sought after by that still larger body of readers existing in the "Greater Britain" which now encircles the globe. And if it be true, as has been said, that the judgment of enlightened foreign contemporaries is an anticipation of that which posterity will give, he may possibly have a foreshadowing of the verdict that a future generation of his own countrymen will pass upon him, in the estimate in which he is now held amongst those who inhabit the regions beyond the Atlantic.

The mode of instruction in the Medical Schools of America is necessarily very much the same as here. But there are some differences. Thus the course of education required is generally shorter than with us, and no preliminary examination in the way of matriculation is required before a young man can enter upon his medical studies. This undoubtedly is a great evil, and as such is much deplored by many teachers to whom I have spoken on the subject; but I am told that, in the present state of things in America, it would be impossible to sift the candidates for a profession, or to establish such an ordeal as a matriculation examination. About the systematic instruction I have nothing to say. There is no essential difference in this respect between England and America. It is everywhere much the same. Dissection is easy to be obtained, and the bodies used for that purpose are either furnished gratuitously to the students or supplied at a low cost. There is but a nominal fee required for hospital attendance. The whole system of medical education, indeed, is far cheaper than with us. The chief difference that I have observed is in the method of communicating clinical instruction. The medical schools in the principal cities of the States, especially in New York and Philadelphia, are so enormous that the classes would be too large to be conducted through the wards of a hospital. Classes numbering from 600 to 800 are not uncommon. At Professor Pancoast's introductory lecture at Jeffreson College, Philadelphia, there were probably 600 students present; and at my last visit to the clinical theatre at Bellevue Hospital, New York, it was estimated that a thousand students were present. It therefore becomes necessary to bring the patient to the students, rather than, as with us, the pupils to the patient. This is done by raising him off the framework of his bed on a small platform running on wheels, and thus carrying him without any disturbance of position into the clinical theatre, where he is examined and the case discussed. I will give no opinion as to the value of this method of teaching in medical cases, but in many surgical cases it appears to me to be far more useful than that which is generally adopted in this country. The surgical disease or injury can be more readily displayed in this way to a large body of students than it can when they are crowding round a bed, standing in one another's way, and often hampering the proceedings of the surgeon. There is one peculiarity in the mode of instruction in American hospitals which deserves mention. It is this: that each surgeon of the hospital often only serves for a short period of the year—four to at most six months; each of his colleagues in rotation taking up the practice and the clinical teaching during the remainder of the term. The advantage of this system is that the teacher is not exhausted by continuous work, but returns with refreshed energy to his duties.

The Hospitals in the United States are, as with us, supported by voluntary contributions or by endowments from wealthy benefactors. The Americans are munificent in their charity, and hence these institutions are numerous and well-organised. America has two sets of hospitals, the old and the new. Like England in some of its larger towns, it is still embarrassed by the hospitals erected in pre-sanitary days, under systems of construction which time, experience, and the advance of scientific knowledge have proved to be erroneous, in which septic diseases are readily generated and become largely destructive to the patients. These institutions are, however, undergoing a process of conversion which will speedily do away with many of the evils inseparably connected with such buildings. The Americans learned a hard lesson in the deadly struggle of the War of Secession—a lesson which is not likely soon, if ever, to be forgotten by so practical a people, unfettered by old prejudices and preconceived opinions. The lesson to which I allude was this: that wounded and injured soldiers could only safely be treated in the open, in hut or barrack hospitals. This lesson has been taught to Europe by the more recent experiences of the Franco-German war, with what results in the future remains yet to be seen.* That the barrack or hut system is superior to any other for surgical cases there can be no question. The misfortune is that in large towns, where ground is expensive and difficult to be procured, this system is, owing to the space required, not easy of adoption. There are also certain obvious inconveniences connected with it in those cases in which clinical instruction is required to be carried on in the hospital. The problem, then, to be solved in the construction of modern hospitals in large cities appears to be, how to combine the best condition for the patient with economy of space and proper facilities for the student. This problem is in process of solution in America. Indeed, it has, I believe, already been satisfactorily solved.

The new hospitals in the United States are generally built upon a uniform plan, having a central building for the administrative department, and wings for the reception of patients. This is the general plan of the construction of such hospitals as the Presbyterian, Mount Sinai, St. Luke's, and others at New York; of the Episcopalian and the New University Hospital at Philadelphia,—and is in accordance with the best principles of hospital construction as practised in Europe. But these hospitals, magnificent in construction and in all their appliances as some of them are, have not been found sufficient to satisfy the sanitary requirements of American surgeons. Accordingly the barrack system for surgical cases is now being adopted. It is proposed to erect, in the gardens of the Bellevue Hospital at New York, a detached barrack-building for the reception of cases of surgical operation and injury. And a similar detached ward will be constructed in connexion with the Hospital for Women, where, under the energetic action of Marion Sims and of Emmett, the number of operations has increased very greatly of late years. At the Presbyterian Hospital in Philadelphia such a building is in course of erection, and will be completed by the commencement of next year. At the Roosevelt Hospital at New York, without exception the most complete medical charity in every respect that I have ever seen—a hospital the construction of which reflects the greatest credit upon its designers,—in this hospital, which is constructed on the plan of a central administrative department, with lateral pavilions, there is a large detached barrack-ward erected in the garden, having no communication with the general structure except through an open corridor. This barrack-building or ward is devoted solely to the reception of acute surgical cases. It consists mainly of one large ward, containing thirty-six beds, arranged two and two on either side in the interspaces between the windows. It has an open basement, and a large ventilating space between the ceiling and the roof; and every appliance that modern science can suggest in the way of securing efficient ventilation, cleanliness, and warmth has been expended upon it. This ward, filled with surgical cases, has now been opened for nearly three years; and I was told by Dr. Weir, who kindly took me over it, that during that time there had only been one case which was supposed to be pyæmic—a case of so-called "pyæmic meningitis" following urethrotomy; any way, a case of blood-poisoning probably rather from self-infection than from external contamination. In addition to this magnificent barrack-ward there is in the gardens attached to the Roosevelt Hospital a separate hut for the reception of erysipelas cases that may be brought to, or might accidentally develop in, the institution. The Roosevelt Hospital appears to me to be a model that might with great advantage be copied in this country, especially in those towns where it is becoming necessary to destroy pyæmia-infected infirmaries,

and to construct new hospitals. It is a perfect model for a hospital of from 150 to 250 beds; and the plan admits of its indefinite augmentation by the addition of pavilion wings and barrack-wards.

But admirable as this institution is, an attempt has already been made to improve upon it. The American surgeon, as I have already told you, is progressive. He invariably tries to go from good to better. He will not remain content with those appliances and means which might have been sufficient for a past generation, but are no longer equal to the requirements of the present day. Dr. Billings, of the United States army, one of the most learned and advanced surgeons of the day, is superintending the construction of a hospital at the "Soldiers' Home" near Washington, a magnificent establishment, the Chelsea of America. There is no barrack or hut attached to this hospital, as it is intended for chronic cases only; but, should occasion require, such a building might easily and cheaply be run up in connexion with it. I will mention to you some of the principal points that Dr. Billings is carrying out in connexion with this hospital, as they are, I believe, quite novel in this country, although some of them have been adopted in the more recently constructed institutions in the United States, which I have already mentioned. The points are these:—The hospital, like all modern American ones, has a central administrative building and two wings or pavilions for the wards. It is three storeys high. The central administrative building contains the staircase, lifts, furnace-chimney and air-shafts. The basement storey throughout the building is open; and the remarkable point in the construction of the hospital is this, that all the domestic offices, such as the kitchens, laundries, &c., being at the top of the building, under the roof on the third storey. In this way there is no possibility of contamination of the atmosphere of the hospital from these domestic sources. The first and second storeys of the pavilions are occupied by the wards. The walls are parianised; no angles are left in them to harbour dust and dead air, but they are carefully smoothed and rounded off. The ventilation of each ward is independent, and separated from that of the main centre building, and of every other ward. The waterclosets and lavatories, which will be of the most modern construction, also possess an independent system of ventilation. The system of ventilation is briefly as follows:—There is a large brick air-shaft about six feet square, running up the centre of the administrative building, through the middle of which an iron flue ascends, carrying up the smoke and the heat from the furnace below, which is used for heating water that is required for warming the house and for the working of a small steam engine employed for the general purposes of the establishment. The air in the brick shaft is thus always kept warm, and an upward current is established. Into this main shaft, lateral air-shafts, about two feet square, run from each ward. They lie between the floor and the ceiling, communicating with the ward by traps, which can be opened or shut at pleasure, and so arranged that the air can be drawn from the top or bottom of the wards as may be required. Fresh air is pumped into the wards through a large air shaft opening 200 feet from the hospital, into which the air is driven by a fan worked by a small steam engine, 5000 cubic feet per bed per hour being thus thrown in and passed through the wards. In winter the air can be warmed by passing over coiled hot-water tubes; in summer it can be cooled by being iced. The isolation of each ward is complete. It is effected by means of a transverse corridor stretching across the whole depth of the building between the ward and the central compartment, open at both ends, and shut off from the ward by double swing doors.

In all the modern hospitals that I have visited in the United States I have been particularly struck with the extreme attention to cleanliness in all that concerns baths, lavatories, and waterclosets. These appliances are as perfect as they are substantial, and as ornate as are to be found in the best private houses. They are invariably carefully isolated from the wards. Great attention is also bestowed upon the disposal of foul linen, which, as a rule, instead of being carried through the building, is conveyed directly from the ward down a separate lift in the central department. The laundries also are models of cleanliness, and generally detached from the main building. The whole of the washing of the clothes, drying, &c., is rapidly done by steam machinery. Hot air chambers are also provided for the rapid drying of damp ward linen. The floors are of hard wood, and are dry-rubbed. Fire-proof staircases and hydrants having a continuous water-supply are ready in case of emergency. In many hospitals there are spacious wooden piazzas or verandahs running round the building, and communicating directly with the wards, for air and exercise in summer.

There is a peculiar system adopted in many of the modern American hospitals—having private rooms for the reception of patients who can afford to pay. The charge for these rooms varies from two to five dollars per day. The patient is under the care of one of the medical officers, who receives his fees as he would in an ordinary private attendance. The system is well suited, in cases of sudden emergency, to a country in which there is so large a floating population as in the States, but it is also adopted in cases of chronic disease as a matter of convenience by many who come from a distance for operation or treatment.

Surgical practice in America does not differ in any very essential respects from that adopted here. There are necessarily some modifications, and many ingenious appliances; but essentially there is no greater difference between American and English surgery generally than is to be found between the practice adopted in any two London hospitals.

The treatment of wounds is sufficiently simple, and presents nothing peculiar. I observe that American surgeons are careful about the drainage of wounds, and employ drainage tubes or similar appliances freely.

"Antiseptics" do not appear to be much, if at all, employed; at least, in a methodical form. Carbolic acid in the form of lotion or wash is commonly used. Indeed, antiseptics are not so much needed in the American hospitals as in ours. The object of antiseptics is to prevent the contamination of a wound by septic impurities from without. These sources of contamination do not exist in such hospitals as those that I have been describing to the same extent that they do in less perfectly constructed and less hygienically conducted establishments, and hence antiseptics are proportionately less needed. In America it is attempted to accomplish by improved construction of hospitals, and by close attention to hygienic requirements, those great results which we are here driven to attain by "antiseptic" methods of treatment. In consequence of the ignorance in all matters that relate to the hygiene of hospitals that prevails amongst the architects and managers of these institutions, an undue burden of anxiety, responsibility, and care is thrown upon the surgeon, who is now unceasingly engaged in combating septic disease; and in order to keep down that rate of mortality which is the direct consequence of septic hospital influences he is driven to the employment of elaborate and complicated methods of antiseptic treatment. Cleanliness in its broadest sense is the best and most efficient antiseptic. If the constructors and conductors of hospitals were acquainted with or would adopt those hygienic rules on which hospitals should be built and managed, if hospitals were not overcrowded, if the system of ventilation was perfect, if there was a continuous water-supply, a proper isolation of wards and distribution of patients, the causes of septic diseases would not be generated. Those foul and filth-begotten diseases, pyæmia and hospital gangrene, would disappear, and antiseptics, in the absence of septic influences, would become unnecessary. Contamination of hospital air would be prevented; we should not, as now under defective hygienic arrangements, first allow the pollution to take place, and then be driven to the use of antiseptics in order to prevent infection of wounds by the already septic-laden atmosphere. Under the present system we begin at the wrong end. Instead of preventing the possibility of atmospheric contamination by perfect hospital hygiene, we allow the septic poison to be engendered, and then, before it can be implanted on the wound, seek to destroy it by the employment of chemical agents.

With regard to Anæsthetics I have little to say. Ether is invariably used at Boston, and is preferred to chloroform by many hospital surgeons in other American cities. I saw it given in some operation cases at the Massachusetts General Hospital, which has the great honour and privilege of being the institution in which anæsthesia was first employed in any surgical operation; it was administered here on a sponge, without any apparatus or complicated contrivance.

Except in Boston the Museums are still in an undeveloped condition. That of Dr. Mott, at New York, was unfor-

tunately destroyed by fire; but Dr. Wood, with characteristic energy, is trying to establish one at Bellevue. At Philadelphia the splendid collection of Hyrtl's injections have lately been acquired by purchase. But there is one museum which is so unique, so admirably arranged, and so interesting that I must direct your attention to it for a few minutes. It is the Museum of the Army Medical Department at Washington. This magnificent collection, illustrating not only every possible variety of gunshot and arrow injury, but also those diseases which are more fatal than the bullet to an army in the field or in camp, has, under the able superintendence of Surgeon-General Barnes and of Drs. Otis and Woodward, been most admirably arranged and catalogued. It occupies a building that has a melancholy interest connected with it, as being the theatre in which President Lincoln was assassinated by Booth in 1865. The collection itself is well known in Europe through the medium of those beautifully illustrated and ably collated medical histories of the great War of the Rebellion which have been published under the superintendence of the Medical Department of the United States' Army. Many of the specimens in this museum are quite unique. I would especially refer to a series illustrating splintering of the inner table of the cranium without fracture of the external table consequent on contusion of the skull; the splitting of conical bullets against sharp edges of bone; a collection of foreign bodies, including arrowheads, forming the nuclei of calculi extracted from the bladder; and a remarkable series of specimens of injuries of the bones inflicted by arrow-wounds in Indian warfare. To the physician the collection of diseases of the large and small intestine, resulting from dysentery, diarrhœa, camp fevers, typho-malaria, &c., is most interesting. The preparations have been admirably put up by Dr. Woodward. In this collection will be found some very interesting specimens of resection of joints and bones after gunshot injury. I saw one patient in whom the head of the humerus and several inches of the shaft—in all seven inches of the bone—had been excised. He was now a porter in the museum, had a most useful and well-developed forearm and hand, serviceable for every purpose. There was not only the preparation, but the living example of this triumph of conservative surgery. The case illustrates the important fact that the upper end of the humerus may be resected below the insertion of the deltoid and yet a useful limb be left. I saw another case of an officer who had lost about four inches of the shaft of the humerus, and in whom the limb was equally useful. In fact, American surgeons are very skilful in the management of resections. Sayre has removed the head of the femur fifty-two times, and in his wards I saw some admirable results of the operation, due in a great measure to the very careful after-treatment to which he subjects the patient, and on which he lays great stress.

I have thus given you a very brief sketch of some of the impressions that I formed of our profession during my recent visit to America, and in so doing I have purposely, as far as possible, omitted mentioning the names of American surgeons, because I felt that there are so many so highly distinguished that it would be invidious and perhaps unjust to make a selection of a few amongst the juniors, and amongst the seniors it would be needless to name to you such men as that Nestor of American surgery, Gross, or of Pancoast, of Philadelphia; of Van Buren, Wood, Parker, or Sayre, of New York; Bigelow or Hodges, of Boston; Smith or Johnston, of Baltimore. I can only say that the surgical profession in America contains a phalanx of men alike distinguished for their skill and their knowledge, at least equalling what any European country can produce. And, in conclusion, I would advise those amongst you who wish to see and study the practice of surgery elsewhere than in the school in which you have been brought up in this country, who are not content throughout their lives *jurare in verba magistri*, to run in the one professional groove in which they have been launched, but who unfortunately have not acquired that fluency of the speech of Germany or of France that would render a residence in those countries profitable for the purposes of study, to take a trip across the Atlantic—a voyage in itself interesting, amusing, and health-giving,—and to spend a few months in visiting the great hospitals and schools in the cities of the United States of America.

Inaugural Address ON CLINICAL SURGERY.

Delivered on the 4th November, 1874,

BY GEORGE BUCHANAN, A.M., M.D.,
PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF GLASGOW.

PRINCIPAL CAIRD, COLLEAGUES, AND GENTLEMEN,—When a professor in this University delivers his inaugural address, it is customary for him to refer to the labours of his predecessors, to name some of the illustrious men who have occupied his place and added to the renown of the Medical School of Glasgow; to review the progress of the branch of science which he is called on to teach, during previous incumbencies, and, in view of the responsibilities which now devolve on him, to bespeak the good wishes of those who are to be his future hearers. By the practice and experience of former professors his path is to a great extent clearly defined, his duties are well understood, and his object is, profiting by what has gone before, to emulate, and, if possible, to improve upon the success of his predecessors.

But I am in a different position. I am called on to occupy for the first time a chair which has been founded by the University to meet a deficiency in the completeness of the staff of its medical professors. It will be my duty to find out and pursue a course by which I shall add to the efficiency of our medical school without encroaching on the labours of others.

Surgery, in its three departments, systematic, practical, and clinical, is a subject too extensive and important to be adequately undertaken by one professor. Lectures on systematic or clinical surgery may be delivered with advantage to audiences of almost any extent, but the ward teaching can only be given to limited numbers at a time; besides, the duty of examining all candidates for degrees, both on systematic and clinical surgery, is a duty too burdensome to be undertaken by one professor, even with the assistance of the assessor appointed by the University Court. This task has hitherto been performed with great fidelity by the professor of systematic surgery, with the aid of one of the assessors, but at the expense of such an amount of time and labour as could not well be looked for as a continuance. The former duty—that of teaching—has been ably and satisfactorily performed by the surgeons of the Glasgow Royal Infirmary; but in view of the opening of the Western Infirmary, which will naturally be the practical school for students of the University of Glasgow, the University authorities have taken the opportunity to found a new chair—that of Clinical Surgery—with the object of attaching to their medical school a professor who should devote his time to the teaching of clinical surgery, to the exclusion of any other branch of medical science. It is to be presumed that the future occupants of this chair will be men who, having gained experience as practical surgeons, have been looking to it as a prize for their devotion to surgery; and naturally their services will be much in request, both by the public and their professional brethren. It follows, therefore, that only a limited portion of their time will be available for teaching, and that will be concentrated on clinical work. In this respect clinical teaching differs from the systematic teaching of most of the fundamental branches of medical science. Anatomy, physiology, chemistry, botany, and zoology are best taught by men whose attention is not distracted by the anxieties of professional practice, and who have time to work out, and think out, the problems which are constantly springing up in the advancement of science. Their appropriate place is the laboratory and the study, and the facts with which they deal can be elucidated without any direct reference to the inroads of disease as seen in the living subject. Accordingly, for the professors of these branches to engage in medical practice would seriously interfere with their usefulness in investigating and teaching their several departments in science. But with clinical

lecturers it is different. An extended practical experience in the treatment of disease is necessary to make their instruction of real value. Theoretical knowledge, however extensive, and by whatever means of study acquired, is of no essential use unless it has been put to the test of experience—an experience gained by the practice of surgery both in public and private. From this it must be evident that a clinical surgeon, to be a useful teacher, must have private as well as hospital practice, and to that extent the time at his command to devote to students must be limited.

But another reason for having a chair of Clinical Surgery is that it secures to the student the advantages of receiving instruction in surgery from at least two separate teachers of that branch, accredited by the University. There are surgical affections so obscure, and problems so difficult, and operations so intricate, that in explaining them no two men will enunciate the same ideas, or use the same language, though their ultimate aim is the same. And in the practice of surgery there is room for such difference of opinion that two opposite views may be taken of the same case. Now it has often been said that in the education of young men it is a mistake to give them a number of conflicting opinions, since it tends to confuse rather than clear up the subject under discussion; but I do not think so poorly of the mental calibre of our students as to believe that they are only fit to be crammed with *ex cathedra* statements. In practice they must meet with the difficulty of forming an opinion, by the careful consideration of a great variety of signs and symptoms, and the sooner they are brought face to face with that difficulty, by hearing the contrary opinions of different surgeons on the same subject, the more earnestly will they apply themselves to master it. When the late Mr. Syme went to London to succeed Mr. Liston as Professor of Clinical Surgery in University College, he found to his dismay that he was expected to undertake the lectures on systematic as well as clinical surgery. As soon as that was made plain to him, he resigned his chair in London, and returned to Edinburgh, to restrict his attention to clinical surgery for the reasons I have just specified. When you have two professors teaching the same subject, though in a different manner, you are sure to escape the danger of a one-sided view which you almost unconsciously adopt by listening to the teaching of one man alone.

In many of the great medical schools there is a special lecturer on clinical surgery. Sir William Fergusson is professor of that branch in King's College, London; Professor Erichsen at University College; and for some years before his retirement Sir James Paget had that duty at St. Bartholomew's; while in Edinburgh, the chair held for many years by Mr. Syme, and latterly by Mr. Lister, is one of the most important in the university; and I believe that the time is not far distant when every fully equipped medical school will have lecturers devoting themselves exclusively to it.

But, on the other hand, while the University authorities, in founding this chair, have provided for the students a professor whose duty it is to teach clinically, it by no means follows that he has, or is intended to have, a monopoly of the subject. Practical surgery is far too important to be delegated exclusively to one man; and undoubtedly the professor of systematic surgery should have the means of illustrating practically the doctrines which he teaches in his class-room. Accordingly, it is intended that the students should receive practical instruction in the wards from both surgeons, attending each alternately for a portion of the session.

But, further, the teaching of clinical surgery is open to any surgeon of a hospital containing eighty beds, provided the requisite number of lectures are given, and he is free from any artificial system of routine. Since the passing of the Universities Act the certificates of lectures on clinical surgery at the Royal Infirmary of Glasgow have been received as qualifying for degrees without question; and no doubt of their continuing to be so will be raised from within the University. The decision of that question lies wholly with the University Court, and if raised it must be decided in accordance with the statutes; but I say on my own part, and I may safely say on the part of my colleagues, that there is no wish that the present relation of the Royal Infirmary to the University should be altered.

I shall now shortly state, for the information of those unacquainted with it, the scope and mode of conducting that branch of the curriculum with which I have been entrusted. For this purpose we have recourse to the hospital, where cases of all kinds of surgical accident and disease are admitted. The students, standing round the bed of the patient, endeavour to put themselves in the place of the surgeon while he investigates the history and cause of the disease, noting each fact as it is stated. They observe the methods adopted for examining into the case, and are taught under the eye of the surgeon to examine it for themselves. After all the necessary information has been elicited, they are led to form a correct opinion; the surgeon either putting questions to them, or giving them a short address, or, what is perhaps more useful, thinking aloud while the examination is going on. The appropriate treatment is then explained or carried out, either by the surgeon himself or by the dressers appointed to the ward. Day after day the students watch the progress of the case, which is thus impressed on their minds, and becomes an actual experience.

But it is quite obvious that in a large number of the most interesting cases such a method could not be adopted. To a great many patients it would be most hurtful to hear their diseases discussed and explained in their presence, especially when they are of a dangerous nature, and when a serious operation is necessary as a part of the treatment. In all cases we desire to spare the feelings of the sick—both from motives of humanity and as an element of successful treatment. Accordingly, when there is anything which would be unpleasant or prejudicial to be stated at the bedside, the surgeon repairs with his students to the theatre, where he is free to give, without reserve, his candid opinion from a review of the whole circumstances noted.

But inasmuch as all are not equally fortunate in getting near the bedside—though arrangements will be made for attaining that position in rotation,—a different mode is adopted at the regular weekly lecture on clinical surgery, a plan to make the instruction equally available to all who are present in the theatre—that is, to bring the patients from the wards into the place of lecture. The patient is placed in a chair, or, if he is unable to walk, remains on the bed which has been brought from the ward. He is then examined just as formerly described, and removed to an adjoining apartment. A commentary is then given on the disease, and frequently at the end or during this description, he is brought back to enable the surgeon to point out anything important which may have escaped notice. The patient being removed, the treatment is explained, and any operation necessary may be described in all its details without any reserve. If an urgent operation is required it is performed at the end of the lecture; if not, it is done in the presence of the students at the next operating day. At a subsequent lecture the students are informed of the result of the operation, and in the interval they have the opportunity of visiting the case in the ward. In this way a clinical lecture is a condensed commentary on a particular example of disease, which is presented before the students. It differs from the systematic lecture by concentrating into a focus all the essential points, and is, in fact, as nearly as possible a guide to the management of a similar case which may happen in the future practice of the hearers. By a series of these isolated lessons the student gathers his general principles, and has his mind stored with vivid examples which he never forgets. It must be obvious, therefore, that clinical instruction is the most vital part of a student's education.

But while it is simple enough to decide on the best method of conveying this information, everything depends on the way in which it is received. On yourselves you must rest for the acquisition of the knowledge offered to you. You will soon experience that to see and to observe are two different things, just as different as to listen and to learn. You must therefore go to the sick person himself, and become familiar with his pains and wants, and examine his state with your eyes and hands. There is just one caution—which indeed I need hardly give you: remember we must always have respect for the suffering, in whatever rank of life. You will conduct yourselves in presence of disease with that consideration and humanity which is characteristic of our profession. Remember also that the inmates are not paupers, but many of them of a respectable class of society, who repair to the hospital owing to unforeseen accidents, and because they get nursing and comforts which they cannot command at home, where the number of

occupants of the house would militate against the treatment or the success of an operation. In the history of our hospitals the working classes give noble annual contributions, and when they are admitted as inmates we receive them, not as objects of charity, but as contributors to the funds. But I am sure I have no call to do more than direct your attention to this matter, as my previous experience of hospital students leads me to place entire dependence on their discretion and kindliness.

Every student should become a dresser, in order to get more immediate charge of a certain number of patients. Each dresser should keep an accurate note of the state of his patient every day, as it is only by comparing the notes of one day with another that a habit of accurate observation is fostered. Each case should be reported daily in a clinical note-book kept for the purpose. And such reports, made by the student himself, or from the clinical remarks of the surgeon, will be a store of solid practical information of greater value than the works on clinical surgery ever published.

Nothing conduces more to a correct judgment with regard to any plan of treatment than this daily inquisitional observation of clinical students. All great improvements in surgery have been carried out under the eyes of students, who can at once detect any error of opinion and calculation, or corroborate any accurate conclusion on points of practice. The advances in surgery thus become public property as soon as introduced, and alterations in treatment which have no real value are soon put to an open test and find their level.

Gentlemen, we live in an age of rapid advancement in all branches of science and art, and in our own department we are not lagging behind. Time would fail me to enumerate all the valuable improvements in surgery during recent years, but perhaps it might interest you if I briefly refer to some within my own experience.

Two or three weeks after I was enrolled as a student of medicine, news came from across the Atlantic that Mr. Morton, a dentist in Boston, had extracted teeth without causing pain, by making the patient inhale the vapour of sulphuric ether. The information was received in London on the 18th December, 1846, and on the 21st Mr. Liston, at University College Hospital, performed amputation of the thigh and avulsion of the toe-nail, the patients being quite unconscious of pain. The same night he wrote a note to my cousin, Mr. Buchanan, dentist in Glasgow, who had been a student of his, saying that as early information as to this property of ether might be serviceable to him, he placed the facts at his disposal. Immediately on the receipt of Mr. Liston's letter, Mr. Buchanan came to my father, who at that time was surgeon to the infirmary, and having procured some ether, we began an experiment forthwith. My father and Mr. Buchanan were not successful, but with the assistance of another cousin well acquainted with chemical manipulation, Mr. G. S. Buchanan, I tried the experiment on myself. The ether was put in a glass globe with two necks, one of which I put in my mouth, while the air entered the flask by the other. In a few minutes I heard my cousin call out, "He is slipping from the chair," and then became unconscious. My father could not credit his eyes till he thrust his lancet under my nails till the blood flowed. Indeed, when I recovered consciousness I was inclined to disbelieve, till I saw the blood flowing from my nails. That is an old story now, but to me its memory comes back with all the vividness of a first-year student. It is unnecessary to take up your time just now with any remarks on anæsthesia, but there is one point which I think has escaped the notice it deserves. In estimating the number of deaths which have happened under chloroform, there are various sources of error, one of which was forced on my attention in a most remarkable way. When we consider the very small number of deaths from chloroform, and the large numbers of instantaneous or sudden deaths arising from what are called natural causes, the question arises: "Have none of these chloroform deaths been really examples of deaths which would have happened independently of the administration of chloroform?" Three years ago, a patient with a small tumour on the lip was recommended to me by Professor Allen Thomson. The patient and his wife took lodgings in the vicinity of my house for my convenience. A day was fixed for the operation, but on the morning I received an urgent call to the country, so that the operation was postponed. The same evening the landlady called on me to tell me that her lodger had gone out for a walk in the forenoon and had not returned. Next morning I received the startling intelligence that my patient had fallen down dead in the street, at about midday, the very hour I had appointed for the operation. Had I, at the critical moment, been administering chloroform, I have no doubt that I myself would have attributed to it the death which happened as I have stated.

In 1860 I was hurriedly sent for to see a little patient, apparently moribund from suffocation, the result of an attack of croup. Although the case seemed hopeless, I determined to perform tracheotomy, and had the satisfaction of seeing the breathing restored. Three weeks after, the child was running about quite well. Encouraged by this success—well knowing the happy experience of M. Trousseau in Paris—I performed the operation in other cases, and when I had reached the number of ten I brought the subject under the notice of the Medico-Chirurgical Society. Most of the surgeons present disapproved of the proceeding, and maintained that it was both unnecessary and improper, and discouraged me from continuing it, but I shall not soon forget the encouragement I got from two of the most eminent physicians of the Society, the late Dr. A. D. Anderson, and my colleague, Dr. Gairdner. I have now operated more than forty times, and saved over one-third of the patients; and, when it is remembered that in every case medical treatment had proved of no avail, and death from suffocation was imminent, it must be conceded the results have been most gratifying.

The history of ovariotomy is one of the most interesting topics of modern surgery. During the first half of this century, isolated attempts were made by various surgeons to remove ovarian cysts, some of them with success, but with such a preponderance of mortality that many of the most distinguished surgeons maintained that it was utterly indefensible, and could not be "encouraged and continued without danger to the character of the profession." Between 1840 and 1850 several fortunate results were obtained by Dr. Clay of Manchester, and others, and in 1858 Mr. Spencer Wells began that series of improvements in attention to details of operating and after-treatment which gave rise to his unprecedented success and established the operation on a permanent footing. Before I was appointed surgeon to the infirmary, Dr. Lyon had made two attempts, at both of which I was present; but in both instances the result was fatal in a few hours. Being convinced that Mr. Wells's success must depend upon some minutiæ with which we were not acquainted, I went to London to see him, having made his acquaintance while we served together in the same hospital during the Crimean War. I accompanied him to several of his private operations, and carefully observed every step of the proceedings. In April, 1864, I performed the operation on a patient in the infirmary, and I had the pleasure of placing on record the first successful case of ovariotomy in Glasgow or the West of Scotland. Since then it has been yearly performed with an amount of success equal to that of any capital operation.

Cancer of the tongue is one of the most distressing of surgical affections. The gnawing pain prevents sleep and exhausts the sufferer, who is in great part deprived of the power of speech and swallowing. When only a small part is affected, it is easy to remove it; but when a large portion is invaded the operation is a serious matter. It is necessary to cut away not only the diseased structure, but also a part of the sound tissue beyond, in order to avoid the risk of a return of the disease. Even after the most perfect operation, the disease often recurs either in the remaining part of the tongue or the adjacent glands; but it is certain to do so unless the cancerous part is completely removed. Owing to the extensive attachments of the tongue, it is very difficult to get access to it so as to make the incisions sufficiently free, and accordingly, in 1864, Mr. Syme proposed and executed a modification of previous operations, by dividing the lower jaw at the symphysis, separating the two halves, and removing the whole organ from its attachments to the hyoid bone. This bold proceeding was in the first examples followed by a fatal result, but in a fourth case, by leaving the attachments to the chin undivided, he succeeded in removing the whole tongue with perfect success, the patient being able afterwards both to speak and swallow.

It was obvious that the earlier operations were fatal in consequence of the extent of the mutilation and the division of the muscles which steady the hyoid bone. On reflecting on the nature of the disease, it occurred to me that a much less severe mutilation might serve the purpose. Cancer of the tongue most frequently begins at the side, caused by friction against a broken tooth, or the irritation produced by smoking a short pipe. Its progress is gradually to creep backwards, but it rarely crosses to the other side till it has invaded almost the whole of that in which it began. A case of this disease was admitted under my care in the infirmary in May, 1865, which gave me the opportunity of putting my idea into execution. I followed the first steps of Mr. Syme's proceeding. I then cleft the tongue from tip to the hyoid bone, and removed the whole of the diseased half by a lateral cut. Examination of the excised half showed that my knife had gone quite beyond the disease. The patient made a good recovery, and is alive and well at the present day in Lochranza, in Arran; she is known to almost everyone on the island. I consider that the plan of removing the lateral affected half, instead of the whole organ, which I have now frequently performed, is not only free from danger, but promises most satisfactory results.

There are few deformities more distressing to the patient, or to the parents if it is a child that is in question, than talipes varus, or club-foot. From a very early period of my professional life it has fallen to my lot to operate on these cases. At first I was in the habit of performing the operation necessary to remedy the deformity in the manner recommended in the most reliable treatises on the subject; but I was dissatisfied with the slowness of the improvement and also with the ultimate result. On studying some cases I became satisfied that the deformity depended more on the structures in the sole of the foot than on the tendons of the leg. The incision recommended by most authors was evidently made without any well-defined object, and naturally failed in its effect. By altering the position, direction, and depth of the incision, I was enabled to divide those structures which I believed to be at fault; and the result altogether exceeded my expectation. This is not the place to enter into detail; but some of the most obstinate cases have yielded after these deep incisions. Many of you will recognise in the courts of the University a young gentleman, a member of the gown classes, who placed himself under my care at the end of last winter session. During the summer recess the treatment has been most perseveringly carried out, and two or three days ago he called on me to report himself. In gratitude for having been enabled, for the first time in his life, to walk with the sole of his foot on the ground, he volunteered, if I would make it the subject of a clinical lecture, to present himself to you in the theatre of the Western Infirmary.

It is strange how long a time sometimes intervenes between the announcement of an undoubted improvement in surgical operations and its acceptance by the profession. I hold in my hand a little volume published in 1806 by Dr. Jeffrey, at that time Professor of Anatomy in this University. It contains an account of several cases of excision of carious joints—two of the knee, by Mr. Park, of Liverpool, performed as long ago as 1781, and three of the elbow, by M. Moreau, in France, at the beginning of this century. It also contains a commentary on the subject by Dr. Jeffrey, and the description of a saw which he invented to facilitate the proceedings. But the operation did not produce that impression on the surgeons of the day which might have been expected, and it lay almost in abeyance till Mr. Syme rescued it from oblivion, and by adopting it systematically as a substitute for amputation of the arm, became practically the introducer into this country of the now universal excision of the elbow. He also extended it to the shoulder, but strongly objected to its application to the wrist, hip, knee, or ankle. Other surgeons, especially Sir William Fergusson, applied it to these joints; and Mr. Lister, while surgeon in our infirmary, contrived a systematic operation for removal of the wrist. This extensive manipulation, however, is rarely required, it often being sufficient to remove with gouge and forceps the diseased portions. In a week or two you will see in the Western Infirmary a patient in whom the disease was so extensive that she came to me to have her arm amputated; but, by the proceeding I have mentioned, she has not only retained her hand, but with her fingers she is able to support herself by needlework.

One of the most remarkable achievements of modern surgery is skin-grafting. When a raw surface, whether the result of ulceration, sloughing, or laceration, is very extensive, the process of cicatrisation stops before it is all covered. Under these circumstances, the surgeon can transplant a small portion of live skin, which takes root, so to speak, on the raw surface, and is a centre from which cicatrisation begins and spreads all around. Cases which formerly were hopeless are now successfully treated by this method.

The antiseptic mode of dressing wounds has, I believe, been a great boon to surgery, though its principles and practice are by no means universally accepted. This is not the place to enter into details on a matter which will form the subject of demonstration in our clinical wards; but we are indebted to Mr. Lister, who, about ten years ago, introduced the process while acting as surgeon in the old infirmary here.

At the present time improvements in surgical manipulation are daily being introduced. Three or four weeks ago, on entering the infirmary at the morning visit, a foreign gentleman presented me a card of introduction from a friend at that time residing in Germany. The writing was not very legible, and I did not notice the name, but asked the stranger to accompany me. Standing beside the bed of a patient who was recovering from a compound depressed fracture of the frontal bone, without having had a bad symptom, I said, "We are indebted in great part to one of your countrymen for our present improved mode of treating such cases. We have been taught almost to abandon the use of the trephine by Stromeyer of Hanover." "My father-in-law," replied my visitor. "Indeed," I exclaimed, "and you are?" "Esmarch of Kiel." It so happened that on the morning in question I was to remove a large vascular scrotal tumour. Dr. Esmarch accompanied me to the theatre, and the patient was put under the influence of chloroform. Turning to Dr. Esmarch, I said, "It is a great pity that your bloodless method is not applicable to such a case, as I shall operate with great anxiety, owing to the exhausted condition of the man and the great vascularity of the tumour." He at once undertook to apply pressure in a way which, he believed, would prevent any hæmorrhage. Being provided with a long india-rubber tube, he passed it round the base of the scrotum, across the pubis, and round the loins, and fixed it in front of the abdomen. To my surprise and delight, I removed the great mass by a complicated and tedious dissection, without the loss of any blood except what escaped at the first incision from the gorged veins on the surface. The man was dismissed with the wound quite healed in three weeks, and I have no doubt the rapidity of his recovery was in great part owing to his having been spared the loss of blood.

But time would fail me were I to recount all the recent advances in surgical science and manipulation. There is one subject which, however, cannot be here omitted. I allude to the singularly beautiful and ingenious modification of the operation of lithotomy devised and first practised by my respected colleague and former teacher, Professor Andrew Buchanan. Long before I was a student, his researches on the coagulation of the blood had given him a place among the physiologists of that day, and his more recent classical paper on the cause of the predominance of the right hand over the left will hand down his name as one of the most accomplished thinkers in the department of mechanical physiology; but his operation of lithotomy by the rectangular staff will stamp his name on the Medical School of Glasgow; and it becomes us to assert for our University the credit of that and other improvements in surgery introduced by Dr. A. Buchanan.

And now, gentlemen, in bringing these remarks to a close, let me say one word as to our new hospital. Constructed on the best known principles, provided with all the most approved appliances, and giving promise of a great future, at the present moment it labours under the disadvantage of having been opened for the reception of patients only two days ago. That defect will disappear every day, and till the wards are filled up—which will, no doubt, soon happen—we shall trust to your forbearance. You will have abundant opportunity for clinical observation and instruction; you will lose no time in going from the hospital to your class-rooms; and if, during the day, anything of interest or importance should occur in the wards, which it would be for your advantage to see, a message can be sent in a few

minutes to the University, and at the close of your lecture hour you can go down to the hospital. I think it very likely that we shall adopt the plan of having two or three of the dressers alternately on duty, to assist the house-surgeons in receiving and attending to the accident and surgery cases. In fact we are now in a position to utilise to the utmost the facilities afforded by the proximity of the hospital.

And here it is our duty to refer to the debt of gratitude we owe to Professor Allen Thomson. In the midst of the laborious duties of the most important chair in the medical faculty, he found time to give his unwearied attention to the progress of the noble building in which we are met. The internal arrangements of the new University were in great part suggested by him, and he watched over their execution with the constancy of a clerk of the works. No sooner were these exertions crowned with success than he assumed the duty of superintending the erection of the Western Hospital, and now he has the satisfaction of knowing that it was opened in a state of great efficiency two days ago. It is for us to take advantage of the opportunities thus afforded, and prove our gratitude by making good use of them. We were all grieved when his great exertions in this cause brought on last winter an attack of illness, which for a time prevented him from carrying on his professorial duties; but it is matter of thankfulness that during the recess he completely regained his usual health and vigour. I am sure that it is the earnest wish of his colleagues, and of every student of the University, that he may long continue to fulfil the duties of the chair which he so highly adorns.

In conclusion, I must frankly say that I feel the responsibility of being the first occupant of this chair. Though well accustomed to clinical work, it is a much more important charge to have the students of this great University committed to my care than to be a voluntary teacher as I previously was. The University authorities, by delegating the first duties of this chair to me, have honoured me in a manner that is most gratifying. Be assured that I shall use every endeavour, by the most diligent and unremitting attention to my duties, to render my teaching serviceable to you, and to prove myself not unworthy of the trust reposed in me.

WHAT IS A BACTERIUM?*

BY W. A. HOLLIS, M.D.

THIS question is thus answered by Ehrenberg in his great work on Infusoria:† "Animal e familia Vibrioniorum divisione spontanea in catenam filiformem rigidulam abiens." Dujardin accepted this definition without alteration, although he modified somewhat the other genera of the family. The derivation of the word itself (from *βακτηριον*, a little rod) corresponds well with the characteristic features of the organism above given. For several years the accuracy of Ehrenberg's definition was unquestioned; eventually, however, from the observation of the behaviour of these organisms with certain chemical reagents, and mainly also from the elaborate researches of Professor Cohn regarding their morphology, their animal nature was disputed. It was found that they were unaffected by boiling with potash water, and they were further said to behave somewhat as cellulose does when they were treated with sulphuric acid and iodine, although from their extreme minuteness any changes which take place in their tissue under such conditions are very difficult to observe.

For many years past Professor Cohn, of Breslau, has published in occasional papers the results of his investigations on the subject. He has made one great step in advance of previous observers in ascertaining so much of the history of the bacterium as that it arises from the gelatinous scum seen floating on the top of water containing putrescent organic matter, and this he named "zoogloea." He then described the Bacterium termo in these words:‡ "Cellulæ minimæ bacilliformes, hyalinæ gelatina hyalina in massas mucosas globosas, uviformes, mox membranaceas consociatæ, dein singulæ elapsæ, per aquam vacillantes"; and he considered them as of decidedly a vegetable nature, and as allied to the Oscillatoriaceæ. In a more recent pamphlet he placed them amongst the family Phycochromaceæ, in a natural order named Schizosporeæ. His last investigations have led him to divide Bacteria into four groups and six genera as follows:—§

I. Sphæro-bacteria.	Genus 1. Micrococcus char. emend.
II. Micro-bacteria.	Genus 2. Bacterium char. emend.
III. Desmo-bacteria.	Genus 3. Bacillus n. g.
	Genus 4. Vibrio char. emend.
IV. Spiro-bacteria.	Genus 5. Spirillum, Ehr.
	Genus 6. Spirochæta, Ehr.

Of these genera the bacterium, vibrio, spirillum, and spirochæta were in the original vibrionia family of Ehrenberg.

Cohn considers the ferment of contagion to be due to the presence of a variety of the sphæro-bacteria, the micrococci of Hallier. The whole group he divides into three: the chromogen, zymogen, and pathogen—the micrococci of pigmentation, of ferment, and contagion respectively. These organisms are exceedingly minute, darkish, or coloured granules, so small as to be immeasurable. They frequently present the appearance of beaded chains, or the form of aggregations (colonies). They are motionless, and are occasionally found with the Bacterium termo in putrefying organic liquids. Among the pathogen micrococci I may mention the M. vaccinæ, observed by Chauveau and Sanderson in the vaccine lymph; the M. diphthericus, which is probably the same organism as that described by Professor Eberth, of Zurich, as attacking first the epithelial elements of a part, and subsequently the deeper tissues, and which led him to say "the metastatic pyæmia is for the most part a diphtheria with numerous localisations";† and, lastly, the M. septicus,‡ found, according to Cohn, in the miliary eruption of typhus, pyæmia, and other diseases. The chromogen, or pigmentary micrococci, have occasionally been the means of working miracles. Several instances of bread exuding blood, under supernatural circumstances, are related by Rivolta.§ Ehrenberg found this colour on some bread in the house of a patient who had died of cholera, and he ascertained the pigment to be due to the presence of the *Monas prodigiosa*—small roundish bodies, which Cohn classes with the micrococci.

The true bacteria Cohn divides into two species, the B. termo, and B. lineola. The B. termo are small dumbbell-shaped organisms, having a slowly vacillating motion, and about $\frac{1}{9000}$" or $\frac{1}{12000}$" in length. I have elsewhere given Cohn's description of these micro-bacteria and their zoogloea. They are essentially the ferment of putrefaction, and it is doubtful whether putrefactive changes can take place without them. It is probable that Ehrenberg confounded this bacterium with the Vibrio lineola in his plates in the work before noticed. The B. varicosum of some writers is possibly this species, although, when fresh names are introduced in classification without sufficient description, some doubt will always be cast upon the accuracy of the investigations.

The B. lineola is somewhat larger than the preceding species. It is endowed with stronger and more rapid to-and-fro movements. It is rod-shaped, and is essentially the ferment of sour milk. It is equivalent to the Vibrio lineola of Ehrenberg, the V. tremulans and B. triloculare of the same author, and to the V. lineola of Dujardin.

The Desmo-bacteria, or "linked rods," are distinguished, as their name implies, from the true bacteria by being occasionally united together in chains. They are thus separated: the filament transversely lined—Bacillus; the filament cylindrical and curved—Vibrio.

The Bacilli Cohn divides into three species:—

The first, the B. subtilis, is the vibrio subtilis of Ehrenberg. It is a slender supple thread found in stale boiled milk. Its length is about $\frac{1}{250}$". It moves with a pausing motion, "like a fish forcing its way through reeds."

The B. anthracis of Cohn is the Bacterium carbuncolare of some writers. It is described by Rivolta‖ (following

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* Abstract of a paper.

† Die Infusions-thierchen, 1838, p. 77. ‡ Nova Acta, xxiv., p. 123.

* Cohn: Beträge zur Biologie der Pflanzen. Breslau, 1872.

† Eberth, Zur Kentniss d. Bacteritischen Mykosen. Leipsig, 1872, p. 15.

‡ The Microsporon septicum of Klebs.

§ Del Parasitti Vegetali. Turin, 1873.

‖ Rivolta, op. cit., p. 47.

Davaine and Delafond) as an immovable, oblong, highly refractive body, found in the blood of animals affected with the disease. Its size (according to Davaine) varies much, from $\frac{1}{12000}$" to $\frac{1}{8000}$" or even $\frac{1}{2000}$". It is unaffected by water, alcohol, ether, acetic, nitric, or phosphoric acid, or soda, potass, or ammonia. Sulphuric acid readily destroys it. It is occasionally found united in chains of two or three links.

Lastly, the Bacillus ulna is distinguished from the B. subtilis by the greater thickness of its filament and by its rigidity. Its length is about $\frac{1}{125}$". Cohn found it in a stale infusion of boiled egg.

The Vibrios are distinguished from all the preceding genera by their rotary motion. This motion, which most writers had restricted to the spiro-bacteria, Cohn, I think, rightly applies to the movements of the vibrio. The V. rugula is generally seen with one or two slight curves in the form of the signs) or S. A flexible thread, $\frac{1}{125}$" to $\frac{1}{1000}$" long; rotation slower than in the following species. This organism was found in the evacuations of cholera and diarrhœa by Leeuwenhoek, and by Davaine in the pus of balanitis also.* The second species, the V. serpens, is distinguished by the greater number and regularity of its curves, by the rigidity of the filament, and its more rapid rotation. The thread is also considerably thinner than the V. rugula, and its length is about $\frac{1}{2000}$". The motion is serpentine in appearance.

The Spirilla (including the Spirochæta plicatilis, for I do not think Cohn is justified in separating the two genera) of Dujardin† are distinguished by the greater regularity and closeness of the curves of the spiral, and their uniform corkscrew motion. The distinguishing character of the flexibility or rigidity of the threads in the genera Spirochæta and Spirillum respectively, insisted upon by Ehrenberg and followed by Cohn, is rightly set aside by Dujardin as superfluous. All the spirilla, of which Cohn gives three species—S. tenue, S. undula, and S. volutans—were found by him in the decomposing tissues of a fresh-water snail. They are distinguished mostly by their size from each other. The S. volutans is by far the largest of all the bacteria, if we apply the name to the genus at all. It is thus described by Ehrenberg, "Filis valde tortuis robustis et elongatis." Cohn fancies that he has found traces of organisation within it.

I have above given a short *résumé* of the labours of the most trustworthy naturalists upon the morphology of bacteria. I shall now only add a few remarks upon the limitations we should place on the term.

In the first place, then, it seems right to consider bacteria as strictly forming part of the vegetable kingdom, and this, as I have before remarked, is the opinion of all the most trustworthy authorities of France, Germany, and Italy. I should have included our own country in this geographical list had I not lately been somewhat startled to find a learned professor in a recent lecture at the Royal Institution‡ reported to have represented bacteria to be "animalcules." Secondly, I think the name bacteria ought to be restricted to those minute rod-like hyaline bodies, the B. termo and B. lineola of Cohn. They have a more or less rapid to-and-fro motion. The so-called "locomotive bacteria" of some physiologists are probably in many instances specimens of the larger V. rugula. Rivolta considers that the true bacteria have no proper locomotive powers, only the vacillatory movements common to all small particles of matter suspended in liquids. Thirdly, we must, I think, always associate the presence of the true bacteria (especially the B. termo) with putrefactive or analogous changes in organic liquids.

At some future period I hope to give a short account of the etiology of these organisms, and the part they play in the causation of disease.

* Davaine, Entozoaires, 1860, p. 5. † Infusoires, p. 209.
‡ See report in Illustrated London News, Feb. 14th, 1874, p. 162.

VACCINATION GRANTS.—The following grants have been awarded by the Local Government Board to the gentlemen named for efficient vaccination in their respective districts:—Mr. W. N. Marshall and Mr. J. H. Scott, Nos. 1 and 2 districts, Newent Union, £12 4s. and £6 15s. respectively; Mr. Geo. G. Phillips, public vaccinator, Tickhill District of Doncaster Union, £5 8s.

ON A HITHERTO UNDESCRIBED FORM OF SKIN DISEASE.

BY H. S. PURDON, M.D., L.R.C.P.,
PHYSICIAN TO THE BELFAST GENERAL HOSPITAL AND TO THE HOSPITAL FOR DISEASES OF THE SKIN.

I HAVE had, during the last nine years, frequent opportunities of seeing patients at the Belfast Hospital for Skin Diseases who suffered under a peculiar and yet trivial affection of the skin, usually confined to the upper extremities. I briefly noticed this disease in the *Medical Mirror*, August, 1867, when giving the statistics, &c., regarding the patients attending the Skin Hospital. Since then I have had more opportunities of observing the eruption, and now beg to offer one or two remarks thereon.

This affection of the skin is peculiar, and is only met with in those workers who are employed in the "spinning room" of our flax-spinning mills. Those attacked are usually young girls called "doffers," whose occupation is principally to "doff" or remove the bobbins from the machines, and to clean and oil the same. The following case is an example of the disease.

Arabella C——, aged fourteen, a "doffer," was admitted at the Skin Hospital December, 1873. She has an extensive eruption on both forearms and arms. The skin of the affected parts is dry, harsh, and covered with a papulo-pustular eruption. The forearms exhibit, scattered over them, innumerable little black specks, showing the orifices of gland-ducts obstructed by sebum, which gets the black spot from dust adhering thereto. In some places the eruption (before the stage of maturity is reached) has a "shotty" feel, somewhat similar to what is felt in small-pox. The skin generally over the patient's body is of a yellowish colour and anæmic appearance. She was ordered to wash the affected parts with soft soap, to use the dilute citrine ointment, and to take a tonic aperient mixture.

As already remarked, the eruption is confined chiefly, if not always, to the forearms and arms of the young girls called "doffers," who are employed in the spinning room, the temperature of which is high. These girls are lightly clad, even in winter, "perspire at every pore," and after a time their skin becomes of a dirty yellowish hue. The constant sweating makes the orifices of the sudoriparous and sebaceous gland-ducts more open and visible; and then the oil (which is train or sperm oil) with which the machinery is oiled saturates their arms and hands, and clogs and obstructs the orifices of these gland-ducts. The retained secretion, acting as an irritant, gives rise to inflammation, causing in the first instance a papular eruption, which, however, soon becomes pustular at the summit, with a black spot in the centre; these elevations, however, rarely burst or scab. The disease seems to me to be a combination of lichen and acne, if I may so express myself. The papules in the first instance are produced by an inflammation of the follicles due to retained secretion acting as a foreign body and giving rise to irritation accompanied by prolific cell-growth. I have never met with an eruption similar in appearance, &c., in any of the towns where I studied dermatology, and it seems to be peculiar to the class of people I have mentioned, Belfast being the great centre of flax-spinning.

I wrote to some of my professional brethren who attend the dispensaries in Belfast and the immediate neighbourhood of flax-spinning mills, and who have thus good opportunities of observing this complaint, asking them to give me any information they could regarding it. Dr. Newett, medical officer of the Ligoneil Dispensary, says: "I repeatedly see the cases of lichen-like eruption, chiefly on the arms (if not altogether so), to which you refer." Dr. Spedding, one of the medical officers of the Belfast Dispensary, writes: "I have often observed the eruption you speak of. During the small-pox epidemic it often confused me, when there were symptoms of pyrexia present. It always remains papular, is frequently, in the young, upon the face as well as the arms, and might be mistaken for acne. I have observed that it is only those employed in the hot rooms who have it. In fact, from its presence I can always diagnose the patient to be a 'spinner.' I have never tried any treatment for it, believing such to be useless while they are

engaged in a warm moist atmosphere." With regard to the eruption being observed on the face, which Dr. Spedding mentions, I think it is accounted for by the person wiping her face, whilst it is perspiring, with oily hands.

Belfast.

CASE OF

THROMBOSIS FOLLOWING INJURY OF THE LEG; RECOVERY.

BY CAREY COOMBS, M.D. LOND.

MR. W—— is a farmer, aged fifty-seven. He had been healthy and hardworking until the year 1864, when he had swelling of the abdomen and legs for several weeks; but after this was gone he had little sickness until 1866, when he had an attack of broncho-pneumonia. He was then very ill, but made a good recovery.

In the last week of August, 1870, he was helping a man to carry a heavy oak sapling, when the man's end dropped. Mr. W—— thus received an extra amount of weight, and let the log fall upon his right thigh just above the knee, so that the leg was immovable, and he could not get rid of the piece of timber until help came.

When first seen (Sept. 1st) a few days after the accident, the right thigh presented slight swelling on its inner side (lower third), which was tender on pressure and painful. Rest and a cooling lotion were prescribed; but the pain remained, and the leg began to swell. On Sept. 15th there was vomiting, which lasted for several days. The right thigh swelled, and continued doing so until the skin was tense and shining, when the other leg became œdematous, then the nates, then the abdominal wall, the swelling extending up the back to the spines of the scapulæ early in November. On Sept. 27th he had a severe rigor, but it was not followed by any marked change in the symptoms.

There are no exact notes of the state of the urine &c. at this period, but albumen was never found in the fluid, which was frequently examined during the illness.

The treatment had been palliative merely up to the middle of October, when mercurial pill was given for a few days. On the 31st October a pill containing digitalis, blue-pill, and squill, of each one grain, was prescribed, and was given night and morning for three weeks. After this, dilute mercurial ointment was rubbed into the thighs for eight or ten days. At this period (end of November) the swelling of the abdomen, back, and legs grew less, and gradually disappeared. Four months after the accident the œdema of the trunk and legs had passed away, but elastic bandages have been applied to the legs ever since, and the swelling reappears in them now and then.

He is at present (November, 1874) attending to a small farm, but suffers much from dyspnœa on active exercise, from discomfort in the abdomen on stooping, and from sharp pain in the epigastrium when he lies on his back. His appetite is good, his tongue clean, and he has rather a healthy appearance, except on the approach of cold weather, when the lips and ears become blue and the face has a "congested" look, which suggests impeded circulation. His urine is almost always high-coloured, and contains much deposit of urates, and he has a tendency to constipation. Both these conditions are favoured by a habit of drinking very little fluid of any kind at any time. The cutaneous veins of the abdomen are large and tortuous, and fill from below, and the epigastrium is distended by a large tumour, which pulsates, expanding laterally as well as anteriorly. This movement, and the epigastric pain felt on lying down, are increased by cold. A loud rasping murmur (systolic) is audible over the tumour. The heart is large and very irregular in its action; there is a loud murmur with, or rather *taking the place of*, the first sound, most audible on the left side of the sternum; the second sound is double. The lungs appear to be healthy, and there is no cough.

Remarks.—There can be little doubt that there was plugging of the femoral and iliac veins and inferior cava, and that the obstruction was clearing away at the time that the mercurial treatment was pursued. The exact amount of injury to the circulatory system during the illness cannot be defined, because there are no data as to the state of things beforehand. It is certain that the abdominal veins were not tortuous, and that there was no pulsation in the epigastrium *before* the accident. Of the cases published in THE LANCET this year, of sudden fatal results from like causes, Dr. Browne's most resembles the above case.

Castle Cary, Bath.

INTESTINAL OBSTRUCTION OF ELEVEN DAYS' DURATION; STERCORACEOUS VOMITING; RECOVERY.

BY A. H. BREWER, L.R.C.P. LOND., M.R.C.S., &c.

E. G——, single, a spare, healthy-looking man, aged forty-nine years, came to my surgery this evening (Oct. 29th, 1873), complaining of violent, colicky pain in the abdomen, which began slightly this morning, and has gradually increased in severity through the day. He says that for the last three or four days he has not felt in his usual health, but attributes this attack to an "over-dose" of steak-and-kidney pudding, of which he dined too heartily yesterday. He states that he always enjoyed good health, the only ailment which has ever troubled him being slight occasional attacks of "spasms in his bowels." The last occurred about two months back. He appears in great pain, and sits or stands with his arms across his abdomen. His face is pale, and expression anxious; skin cool and perspiring; tongue coated and flabby; has been sick three or four times during the day; bowels acted naturally this morning. There is slight general fulness of the abdomen, with tympanites; no localised or general tenderness; the greatest amount of pain is referred to the right iliac and hypochondriac regions. He was ordered to go to bed directly, and apply linseed-and-mustard poultices to the abdomen, and to take a mixture of ether and laudanum every four hours. This his stomach rejected, but a five-grain soap-and-opium pill every four hours soon relieved his pain, and on the 30th and 31st he was much as usual, except that his bowels did not act, although he took two podophyllin and colocynth pills and a drop of croton oil.

On Nov. 1st I took the following note:—He is not nearly so well this morning, the bowels have not acted, and he has been sick several times, the ejecta being of a dark unhealthy character. His expression is anxious, and he says "he feels very ill"; skin cool, and perspiring slightly; pulse 90, soft and regular; tongue dry, thickly coated with a white fur. He complains of a good deal of pain over the abdomen generally, but especially over the right iliac fossa, where there is marked fulness, dulness on percussion, and slight tenderness; the other regions of the abdomen are tympanitic. There is no hernial protrusion anywhere, nor is there history of any old abdominal mischief or of organic malignant disease; there is no tenesmus, no passage of blood or mucus from the rectum, nor is the rectum loaded with hardened fæcal matter. Here is a case of intestinal obstruction, probably due to some mechanical blocking up of the caput coli. Ordered a copious injection of warm water (this returned without any sign of fæcal matter), and a pill containing half a grain of acetate of morphia and half a grain of extract of belladonna every four hours, with hot linseed poultices to the abdomen.

Nov. 2nd.—No change in any of the symptoms. Advised to see Dr. Ward to-morrow.

3rd.—Met Dr. Ward in consultation. Symptoms remain unchanged. Ordered one grain of opium in powder, with one grain of sugar, instead of the morphia pills. The powders produced sickness, so the opium was simply moistened with water and made into a pill.

On the 4th the symptoms were unchanged until the evening, when he twice vomited undoubted stercoraceous matter.

5th.—Has not been sick since last evening. Expresses himself as better. After consultation with Dr. Ward, the same plan of treatment—opium internally and poultices to the abdomen—was continued.

6th.—General condition the same. No return of sickness.

7th.—Saw him in consultation with Dr. Ward. He has passed flatus from the rectum three or four times. To con-

tinue the same treatment, with the addition of a nutrient enema night and morning. The first was given at 5.30 P.M., and about two hours afterwards he was violently sick, bringing up a large quantity of stercoraceous matter. Another injection at midnight was not followed by a like result.

10th.—From the date of the last note the symptoms have been all favourable, becoming gradually less indicative of complete obstruction; and this morning, much to the patient's pleasure and my satisfaction, about half a pint of fæcal matter, of the consistence of tar, of a dirty dark colour and most offensive smell, passed.

The difficulty was now overcome, and the convalescence was perfectly satisfactory, so much so that on Nov. 22nd he returned to business for a short time.

Feb. 18th, 1874.—He was in my surgery this morning. He says he is "as well as ever he was in his life; eats and drinks all that is put before him, and his bowels act regularly."

I think this case proves that in cases of intestinal obstruction, doing what to anxious friends and relatives appears very little is in reality doing a great deal. I cannot but believe that often friends and medical men, in their anxiety to relieve, do too much. Opium, and opium only, in full doses frequently repeated, is the sheet-anchor in the treatment of all cases of intestinal obstruction. If that fail, what is likely to succeed? Patients suffering from obstruction appear able to take almost any quantity of opium without the production of poisonous effects; it soothes their pain and discomfort, tranquillises their mind so that they do not realise how time passes, and allays irritability; but the intellect keeps perfectly clear. Mr. G—— took, from October 29th to November 10th, nine grains of morphia and fifty grains of opium—for four consecutive days as much as eight grains a day—without once showing any sign of narcotism.

Queen's-road, Dalston.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

ATTACKS OF GIDDINESS AND VOMITING, WITH DEAFNESS AND EAR DISEASE.

(Under the care of Dr. HUGHLINGS JACKSON.)

IN our Mirror for Sept. 6th, 1873, we reported some remarks by Dr. Hughlings Jackson on cases of vertigo with ear disease (Menière's disease). Such cases are not very uncommon in the out-patient room, but are not of sufficiently continued gravity to necessitate the patients' admission into the wards. In spite of recent writings by Knapp, Hinton, Wilks, Charcot, Swanzy, and others, to say nothing of the original papers of Menière and the writings of Trousseau and Ramskill, it is not at all generally known that attacks of severe vertigo have definite clinical associations with ear disease. In private practice it is, Dr. Hughlings Jackson says, very difficult to convince educated patients that their ear disease, especially if it has been of long standing, can have anything to do with paroxysms of giddiness and sickness. A patient will say that he does not care about his ear, and insists that his old deafness has nothing to do with his recent symptoms. On the other hand, he is anxious to point out that his vomit was very green, and to persuade one that it is his liver that is at the bottom of the mischief. There is a similar scepticism amongst medical men, including even some of those who themselves suffer from the symptoms of Menière's disease. Whatever differences of opinion there may be among medical men and physiologists as to the function of different parts of the organ of hearing and as to the way in which disease of the ear produces giddiness, there is no room for doubt as to the clinical association of ear disease, giddiness (with or without obvious reeling), and vomiting. If ear disease be the *fons et origo mali*, treatment of the other symptoms by nervines, or of the stomach and liver, is uncalled-for. And surely it is allowable, if there be no connexion, to treat so important a state of things as aural disease.

Cases of Menière's disease have great physiological interest. We would, in this regard, particularly refer to the recent researches of Dr. Crum Brown on the Sense of Rotation.

The following case is a good example of auditory vertigo, but, as so often happens in out-patient practice, the further course of the case is not known. The following is Dr. Jackson's report; the notes of the case having been taken by himself and Mr. Lewis Mackenzie.

"A robust, stout man, forty-eight years of age, was admitted on July 4th, 1872. He had no albuminuria. There was no heart disease, and his general health seemed good. When fourteen years of age he was in bed eight weeks with rheumatic fever. He had suffered for two or three years from occasional attacks of 'sick-headache'; they would last a day, or a day and a night; there was not always vomiting, but always nausea; when sick his headache was relieved. In these attacks he had no aural affection, no noise in his ears, nor, until the attacks to be mentioned below, had he ever suffered from his ear in any way. He had never had earache, nor discharge from the meatus, and, so far as he knows, he had no deafness. I say, 'so far as he knows,' as some patients do not know that they are deaf of *one* ear, even when the deafness is considerable, until it is found out for them by medical examination.

"This patient has had two attacks. The first, about eleven weeks ago, was slight, and lasted only a quarter of an hour. Whilst working in the garden he *suddenly* felt a sensation in his head like a 'wheel going round'; he otherwise described it 'like a machine thumping in my brain.' But the noise varied in character a good deal; it was sometimes like 'bells ringing,' sometimes 'like a bird chirping.' The noise disappeared before the second and severer attack. In the first attack there was no staggering, and neither vomiting nor nausea. It was, as stated, slight; he did not even lie down.

"The second, or, as he calls it, 'the vomiting attack,' came on two days later. He was sitting down to supper (having drunk a small glass of beer previously), when, after a few mouthfuls of bread-and-cheese, he felt sick, and fearing to vomit in the room, went out across the yard to a gate, and, leaning over it, vomited. There was much straining, and the vomit was dark. He felt that he could not stand; he tried, but had to cling to the gate. He did not lose consciousness, but felt very giddy. He did not feel giddy on his way to the gate. The vomiting occurred every few minutes. He had to be helped into his house. 'For,' said he, 'to be plain, I was just as if I were drunk; I could neither walk nor stand.' His wife got him to his bed, but with difficulty, on account of his staggering. By this time he felt an aching in his head, mostly at the back, but 'more or less all over.' He mentioned also a 'peculiar sensation' and a sharp pain behind his right ear (over the mastoid process), and lay with his hand placed over this part. He did not attach much importance to this pain, as the vomiting was so incessant that it gave him no time to think of the pain. He had a smarting pain down both legs; his arms were unaffected, except that his 'finger ends seemed numbed'; he 'had to knock them to find life in them.' His sight was dim.

"He kept in bed three days, and had medical advice. During these three days he suffered much from giddiness. When asked what he meant by giddiness, his reply was, 'Everything seemed to be going round and round, and when I even shut my eyes the last thing that I saw seemed still going round. It was dreadful. I thought I should never have got over it.' He said that this sensation continued, although not so much, when his eyes were closed. The room was kept darkened. The pain in his legs, the numbness in his fingers, and the vomiting ceased in about sixteen hours. His appetite soon became good, but he felt intensely weak, and as if he 'had had a severe illness.' He discovered that he was deaf of his right ear on the second day. During this attack, and for two or three days after, he had the same kind of subjective aural sensation as in the former and slighter attack. Since, he has had a continual 'booming' noise, but it has not been so severe of late. He has gradually gained strength, and now complains only of

loss of hearing on the right side, and of the noise in his head.

"I omit the very imperfect examination I made of the condition of the hearing, except that I found that he heard the tuning-fork placed on the vertex much less than on the right side. I examined him with the ophthalmoscope, but I detected no abnormality.

"July 7th.—He is about the same, but has had a slight occasional staggering.

"Mr. Rivington examined the patient for me some weeks later, and the following is his report:—'Right membrana tympani apparently normal, with bright spot lustrous. It is transparent, so that the promontory and the long process of the incus can be seen through it. Air does not enter freely either on Valsalva's or Politzer's experiments. The tuning-fork is heard better on the left than on the right ear. The sound returns on closure of the meatus. The tuning-fork is not heard in either ear so well as it ought to be. He hears conversation fairly with left, and better with left than right. Hearing distance impaired in both ears. Left membrana tympani normal, and similar in other respects to right. The secretion of wax in each ear normal. He says that he has been regaining hearing power.' Mr. Rivington concluded that the patient had disease in the internal ear on the right side.

"It is probable that the patient's right-sided deafness is to be attributed to sudden lesion in the labyrinth. Bearing in mind Knapp's observation on 'limitation of the field of audition,' I sought further evidence as to the exact seat of lesion by testing the patient's 'field of audition,' or rather by getting my friend Mr. Ambrose Kibbler to do it for me. Mr. Kibbler used the violin and violoncello, and tried the patient with two kinds of notes: first those produced by pulling a string and letting it go sharply; secondly, those produced by drawing the bow across the string so as to produce a sustained note. With his right ear (the left being well closed) the patient could hear the high, middle, and low notes—all the notes. But it would seem that they were only *noises* to him, for when two notes, a high and a low (for example, a treble A and a tenor C), were sounded, he could not tell which was low. Nor was this to be put down to dulness of mind, for with the left ear he could detect minute differences—e.g., a semitone. As to the notes when heard by the right ear only, the patient himself said they were like a noise of a cart-wheel. He could recognise 'God save the Queen' with the left ear, but by the right alone he could not pick it out of a series of simple tunes of a similar construction. I confess I do not know what inferences are to be drawn from the above examination in this case. I will quote Knapp:—'If there existed only a general diminution of the hearing acuteness for *musical* sounds, a pressure upon, or atrophy, or some other changes in the nerve itself, or in the centre of audition, might be assumed,' &c."

GUY'S HOSPITAL.

INCISED WOUND OF LEFT ARM; WOUND OF BRACHIAL ARTERY; TORSION; RECOVERY.

(Under the care of Mr. BRYANT.)

THE following notes were taken by Mr. G. Miles:—

George H——, aged twenty-seven, a cellarman of good family history, with well-formed features, very excitable temperament, and a pale face, was admitted into the Accident ward on the 13th December, 1872, with a wound at the inner side of the left arm, partially dividing the biceps muscle, cutting across the brachial artery, and slightly wounding the brachialis anticus. There was great venous hæmorrhage.

About 6 P.M. he was putting a bottle into a crate, when the bottle broke, and a fragment of glass ran into his left arm just over the anterior aspect of the elbow-joint. The wound bled profusely immediately, and the patient stated that he had lost about a quart of blood. He was in good health, had no cough and no previous history of cough; he was in the habit of taking three or four glasses of sherry a day and two glasses of ale at night.

On admission, the artery was twisted at both ends. The wound was dressed with carbolic oil, and his hand and arm were wrapped in cotton-wool. He was less blanched the following day, and had slept pretty well, but complained of excessive thirst. There had been very slight oozing of blood, and he could move his fingers and had sensation in them. Pulse 102, full and regular; temperature in right axilla 102°.

Dec. 17th.—The patient felt better in himself; he looked brighter, and said that he could move his fingers, but that they felt slightly more numb; he took a fair amount of nourishment, but did not sleep much, on account of a fetid serous discharge trickling down his arm. Pulse 92; temperature 100·3°. The following day he complained of great heat in his head; he was very restless and dizzy, and looked anxious; his pupils were dilated, and there was considerable discharge from his arm, but he could use his fingers and had good sensation.

19th.—He felt better and had lost his dizziness, but his pupils were still dilated. He passed a quiet night, but complained of thirst. His tongue was dry, thin, and white. In the night he had shivering, followed by hot flushing. He took light food pretty well, but perspired a good deal. The nurse said he had been very delirious. The dressings were removed, and a portion of the muscle at the bottom of the wound was found to be sloughing, and there was a little pus; but the other parts were granulating freely, and bled on the removal of the dressing. The arm was put on a back splint. A dose of chloral was given. Slept well, and said he felt much better the following day; his pupils, however, were still dilated, but his thirst was less and he ate better. His arm was free from pain and discharged freely. There were sensation and motion in the fingers. Pulse 94; temperature 100·2°.

27th.—A slight redness appeared, extending up his forearm.

30th.—The redness was much the same. There was a hot, tender, fluctuating tumour on the arm just over the centre of the biceps muscle. He was better in himself, and took his food well.

31st.—The abscess, on being opened, was found to burrow under the fascia over the biceps. About two ounces of thick green pus escaped. A piece of oiled lint was introduced, and a poultice was applied. Subsequently the patient appeared more excitable, but he slept well, was not delirious, and said he felt easier.

Jan. 3rd.—During the night the patient had slight rigors, and complained of great pain and heat at an inch on the inner side of the abscess. There was much redness, tension, and pain; but the following day he was better in every respect. The abscess continued to discharge freely until the 7th, when the discharge decreased in quantity, and the wound presented a somewhat crucial appearance. From this date to the 14th he gradually improved, his functions being regular. Pulse 84, soft and regular; temperature 98·6°. The bagging of the abscess then becoming greater, another opening was made lower down, and a good deal of discharge escaped. The upper opening began to close very quickly, but the lower one continued to discharge freely. The radial artery on the injured side was felt to pulsate, but the ulnar artery could not be felt.

17th.—The patient got up for two hours, and suffered very little inconvenience. All the swelling had disappeared, and the abscess discharged very little. The poultices were left off, and the wound was dressed with white ointment. After this the patient got up every day, and gained strength quickly; he had good flexion and extension of his arm, and also considerable pronation.

24th.—He left the hospital. There was at the seat of the original wound a small granulating papilla, and another at the opening of the abscess, which had quite closed up. He had good movement of elbow and fingers, with almost normal sensation. The radial artery distinctly pulsated, but the ulnar artery could not be found by palpation.

WOUND OF RADIAL ARTERY; TORSION OF DIVIDED ENDS; CURE.

The following notes were taken by Mr. J. C. Wilkinson.

James S——, aged twenty-six, was admitted into Accident ward on the 23rd August, 1873, with a wound over the radial artery. He had been cutting some hides with a dirty knife, when it slipped and entered his wrist. There was one spurt of blood, and although the subsequent hæmorrhage was not profuse it was uncontrollable. A pad was applied, but the bleeding did not cease. The arm was

tense and very painful; pulsation could be felt in the radial below the wound.

On admission, the wound was enlarged and the artery exposed, and it was found that the knife had punctured the interosseous membrane, and had wounded the radial artery. The artery was divided and twisted at both ends, and about a quarter of an inch of the vessel was removed. Several other small arteries were twisted, and the edges of the wound were brought together by carbolised sutures. An iced pad and a bandage were then applied. The patient felt faint and sick for some little time after, and his appetite became impaired. Two of the sutures were taken out on the 26th.

Aug. 30th.—There was some bleeding again in the night, and the patient was very faint. He was put under the influence of chloroform, and some clots of blood were removed from the wound.

Sept. 11th.—The bleeding had again occurred, and his arm was very painful.

13th.—The wound was dressed every day with carbolic oil.

15th.—The wound was full of healthy granulations.

Oct. 1st.—The wound had been going on well; it had not shown any great inclination for healing; but he left the hospital on the 4th, progressing favourably.

At the expiration of a fortnight he reappeared, with the wound perfectly healed.

BRISTOL GENERAL HOSPITAL.

IDIOPATHIC TETANUS (SO-CALLED); DEATH.

(Under the care of Dr. MARTYN.)

FOR the following notes we are indebted to Mr. J. Howell Thomas, house-surgeon.

E. B——, a mason's boy, aged fifteen, was admitted at noon on September 10th. The patient had recently been exposed to a great deal of rain. His mother stated that he had never had any blow or injury, but that he had had a sore on his toe, but this had just healed up. Whilst at work on the morning of September 9th he was suddenly seized with a severe pain in his back and head. The pain extended to the muscles of the trunk and limbs, and a severe convulsive spasm came on, and the body was completely arched. His jaw became fixed, and he was unable to swallow anything. His mother said that she was obliged to pour everything down his throat. She stated that he has continued in the same condition up to the time of admission.

On admission, the risus sardonicus was well marked. Trismus and opisthotonos were complete, his body being at times perfectly arched. He moaned a great deal. The body was covered with a profuse sweat. There was difficulty of breathing, and the patient gasped for breath. He was very thirsty. He answered one or two questions quite rationally during the slight remissions, and when the convulsive spasms were not so severe. The convulsive spasms never left him, but at intervals they were a little relaxed. An ice-bag was placed to the head and along the spinal cord. Milk and beef-tea were ordered, and half an ounce of brandy every three hours, and a mixture containing thirty grains of bromide of potassium and twenty grains of chloral hydrate was given every three hours—8.20 P.M.: Temperature 100·2°; pulse 120. The patient continued in the same state. The medicine was now ordered to be given every two hours. The optic discs were healthy.

Sept. 11th.—Morning: Temperature 101°; pulse 118. Patient seemed to be a little worse; the convulsive movements were severer, and there did not seem to be the slightest remission. Bowels had not been moved since admission.—Evening: In much the same state as this morning.

12th.—At 7.40 A.M. the patient expired.

Autopsy, nine hours after death.—Body fairly nourished, not the slightest mark of violence anywhere. On opening the skull, the membranes of the brain were healthy. The pia mater was congested. The brain-substance itself presented points of injection here and there, but there was nothing else to be noticed about it.—Spinal cord: The dura mater was healthy. The pia mater and arachnoid were intensely congested, but were otherwise healthy. The cord was firm throughout its entire extent, there was no softening in any part of it.—Lungs, heart, liver, spleen, and kidneys were healthy; there was no sign of disease anywhere.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

AT the meeting held on November 9th, Victor De Méric, F.R.C.S., President, in the chair—Mr. HENRY SMITH showed a curious specimen of Tumour which had occurred in the neighbourhood of the hip-joint at the inside of the thigh, in a girl seven years of age. He dwelt on the difficulty of diagnosis in these cases, and said that the present specimen was of the fibro-fatty variety, whose true character, however, he himself had only found out just before operating, having previously mistaken it for a cyst. He also suggested the advisability of removing these tumours at an early period, as they are apt to degenerate into malignant growths. —The PRESIDENT and Dr. CLEVELAND made a few remarks bearing out Mr. H. Smith's views on this point, and Mr. ROSE gave the microscopic appearances of the exhibited tumour.

Dr. THEODORE WILLIAMS communicated a case of Transfusion of Lamb's Blood in Pulmonary Consumption, related by the recipient, Dr. Redtel, of Köhen. The author, who had marked tubercular consolidation of the left lung, and ulceration of the larynx, accompanied by a certain amount of pyrexia and dysphagia, was transfused with lamb's blood by Dr. Hesse, of Nordhausen, on the 1st of July, and he narrates his symptoms after the operation. The apparatus consisted of two glass tubes and an india-rubber pipe filled with cold solution of carbonate of soda. By this means blood flowed from the lamb into the median basilar vein of Dr. Redtel for ninety-five seconds. The first sensations were warmth in the arm, formication and redness of the face, and after fifty-five seconds dyspnœa commenced, which became so intense that the operation had to be discontinued at the end of ninety-five seconds. Violent pains in the loins succeeded, which, though diminished in intensity after the cessation of transfusion, lasted some hours; these afterwards assumed a pulsatile character, synchronous with each arterial beat, and were assigned by the author to pressure by the distended inferior vena cava and abdominal aorta on the lumbar sympathetic. Forty minutes after the operation a general rigor, with slight cyanosis appeared, followed an hour later by reaction and profuse perspiration, lasting for five hours; pulse 140; respiration 32. The patient slept without drugs, though badly, on account of his cough. On the second day the urine contained a trace of albumen, and five days later the usual eruption of urticaria appeared, accompanied by rather high fever, greatly prostrating the patient; there was improvement in the appetite on the 8th of July. The operation produced no change in the symptoms except the cessation of dysphagia. Physical examination, however, showed considerable diminution of lung consolidation. Hesse regulates the quantity of blood transfused by the patient's appearance and sensations, and recommends the operation in cases of phthisis where anæmia is a marked symptom, and specially where the disease is ushered in by extensive hæmoptysis, accompanied by slight or doubtful physical signs. The pulse is one great indication; if it be full and strong the transfusion is dangerous. He has performed the operation fifty-two times with but one bad result. Dr. Redtel suggests the use of transfusion of lamb's blood in time of war, to supply the great losses of blood after severe wounds, and he concludes by stating that three weeks after the operation he was gradually becoming worse, having reaped no material benefit from it.—The PRESIDENT then mentioned a case at the German Hospital, in which transfusion had been tried, but which had terminated fatally.—Dr. AVELING objected to the instrument used in the case of Dr. Redtel, as it did not measure the amount of blood transfused; he also preferred transfusing human blood.

Dr. RICHARDSON, F.R.S., then read a short and practical paper on "Certain Types of Disease included under the term of Purpura Hæmorrhagica." He commenced by indicating that in the progress of medical science and art

it had often happened that one or more distinct diseases had been described under a single generic appellation; this particularly applied to the term purpura hæmorrhagica. He defined three forms of purpuric disease, each having a distinct pathology, etiology, diagnosis, prognosis, and treatment. These he called (*a*) aqueous purpura, (*b*) saline purpura, (*c*) vascular purpura. Aqueous purpura was so named because in it the water of the blood is in excess, and the colloidal and crystalloidal parts are relatively decreased; there is no evidence that the actual quantity of fibrine is reduced, but it is distributed through too large a volume of water. This type of purpura has been studied by the synthetical method. The origin of it was traced to hereditary causes mainly, but it may arise from mental shock. Two illustrative cases were given. In saline purpura the blood is surcharged with some saline soluble substance by which the plastic colloidal fibrine is held in undue solution. The synthesis of this type was also explained. The disease is not hereditary, but is induced by some error of diet or other cause that increases the solubility of the fibrine. The author added he had seen it induced by the excessive use of chloral. Passive exudations from vascular parts are characteristic of this type. In vascular purpura the blood is not modified at all, but owing to some defect in the vessels of the minute circulation, they allow the blood to escape if subjected to any blow, strain, or pressure; this may be due to paralysis of the vessel, but the author is rather inclined to attribute it to some structural modification of the vessels themselves. The diagnosis of these three forms was minutely described, the different characters of the eruptions being defined with special care. The author also remarked that these three types may be combined, and concluded his paper by a review of the different modes of treatment required. A special point was made of the best method of arresting the hæmorrhage, and Dr. Richardson dwelt on the importance of paying attention to general as well as to local measures. For the former he recommended the giving of suitable food and of the mineral acids; for the latter, firm pressure and a styptic, though he strongly condemned caustic styptics. He also pointed out the value of turpentine in the vascular variety.—In the discussion which followed, the PRESIDENT asked how syphilitic purpura should be classed?—Signor MARTENOLI said a few words about marsh miasm.—Dr. DALDY confirmed the preceding speaker's remarks, and said there was always enlarged spleen in these cases.—Dr. HARE said he always examined the spleen in such cases, but mentioned a fatal case in which purpura was the real cause of death, there being no enlargement of the spleen.—Dr. HAVILAND HALL mentioned a fatal case of scarlet fever, complicated with purpura hæmorrhagica, in which death resulted from hæmorrhage from the internal carotid.—Dr. CLEVELAND related a fatal case of malignant small-pox complicated with very acute purpura. He had found turpentine and acetate of lead of great value.—Mr. BRAINE recorded two cases of purpura following the use of chloral on the sixth day after the first administration.—Dr. THEODORE WILLIAMS had seen similar cases. He thought Dr. Richardson had omitted an important point in not indicating what organs were involved in purpura.—Dr. RICHARDSON, in his reply, dwelt on the division of the disease into three types; he did not know in what class to place malarious purpura, but the syphilitic variety he placed in the second class, as also another form from overuse of mercury, and that caused by chloral. He had no direct information as to the pulse.

PATHOLOGICAL SOCIETY OF LONDON.

AT the commencement of the proceedings at the meeting on the 17th inst., the chair was taken by Professor John Wood, F.R.S.; the President, however (Sir Wm. Jenner), arrived soon afterwards, but during the course of the evening the latter was called away, and Professor Wood resumed the chair.

The business of the evening began by the reading of two reports; the first on a specimen of renal calculus, which had been exhibited by Dr. Wheatley, the other on a specimen of tubercular lymphatic glands, shown by Dr. Pye Smith.

Dr. WILKINSON then read a short account of a case in which Epithelioma of the Œsophagus had caused death. The patient was a painter, aged sixty-four, who, when first seen, complained of weakness, dyspnœa, and difficulty in swallowing. There was no pain in the throat, and solids and liquids were often expelled by the nose. Hæmoptysis, followed by death, supervened. The post-mortem showed a growth on the left side of the œsophagus, not involving, however, the carotid artery or jugular vein; one inch below the cricoid cartilage there was a large fistulous opening; the lungs were emphysematous, exhibiting patches of pulmonary apoplexy. The case was exhibited to show that fatal hæmorrhage may take place into the bronchi and trachea under such circumstances.

Dr. GRAILY HEWITT then showed an Ovarian Cyst, with muscular envelope. He said that shortly after its removal from a young woman aged nineteen, his attention was called to the remarkable appearances it presented, the interior being mammillated, and resembling the convolutions of the brain, whilst the external covering was evidently muscular tissue. He remarked there had always been doubts as to the manner of the passage of the ovum from the ovary to the extremity of the Fallopian tubes, and that in this case the pathological fact was of physiological interest, as the cyst had evidently formed at the hilus, carrying up with it during growth a covering from the broad ligament.—Professor WOOD stated that in removing a cyst from a woman he had observed an enlargement of the Fallopian tube, which was connected with the middle of the cyst, the fimbriæ being lost over the cyst.—Dr. CURNOW asked if in simple cysts unstriped muscular fibres had been found; and Dr. HEWITT, in answering, said he was not aware any such observation had been made, and that Dr. Curnow must be thinking of cysts of the broad ligament, which differ from true ovarian cysts.

Dr. FREDERICK TAYLOR exhibited an Induration of the Sterno-mastoid Muscle, which had occurred in an infant four weeks old, and which had only been remarked two weeks after birth. The child had maculæ on the body resembling congenital syphilis, but subsequently died of bronchial pneumonia. The sterno-mastoid after death presented a hard nodular mass at the lower end, which appeared on dissection to lie entirely in the muscle, though there was evidently less muscular fibre in the tumour than is general in these cases. No cell-growth was found in the mass. He remarked that the origin of such growths is interesting; they may be syphilitic or the result of some strain to which the child had been subjected in parturition. He did not think the case in point due to the latter cause, as dissection showed no evidences of hæmorrhage or of inflammatory mischief. He questioned what becomes of these tumours, as observation does not tend to show that they disappear.—Mr. ARNOTT had only met with one case of a peculiarity of this kind being the result of a strain during delivery, and did not know of any in which it had occurred from congenital syphilis. He remarked that they are never observed till fourteen days after birth, and thought their disappearance would be a singularity.—Mr. LUCAS mentioned a case of a tumour in the buccinator muscle which had yielded to the application of mercury ointment; subsequently there appeared a rash of congenital syphilis.—Dr. GRAILY HEWITT had seen tumours form on the surface of the skull after delivery, through extravasation of blood; and Sir WILLIAM JENNER thought nurses very often overlook these growths in children.

Mr. CLEMENT LUCAS then brought forward a Cysted Cancer of the Kidney which had occurred in a child seven years of age. During life there had been violent attacks of diarrhœa, pain in the abdomen, tenderness over the liver, under which a tumour was discovered. After death, the right kidney was found hollowed out by a tumour consisting of two large cysts communicating with the pelvis of the organ, and containing about a pint of a liquid resembling urine, in which pus-cells were found. The tumour was classed by Dr. Goodhart as a lympho-sarcoma. There was no albumen in the urine. In reply to a question of Dr. MURCHISON, asking the state of the ureter, Mr. Lucas stated that a catheter could be passed into it.—Dr. DICKINSON suggested that the thickening of the walls in

thee cysts is secondary to the dilatation, and Dr. MURCHISON thought the present specimen to be one of tubercular pyelitis.

Mr. CURNOW then read an interesting pamphlet on a preparation which he exhibited of Double Arch of the Aorta, enclosing the trachea and œsophagus, taken from a female subject aged eighty-seven. After pointing out the comparatively rare existence of a vascular ring enclosing the trachea and œsophagus, he proceeded to give the various appearances of the specimen when viewed anteriorly or posteriorly, from the right or from the left, together with the abnormalities in the position of the several arteries in connexion with the arch of the aorta, and summed up by saying that the vascular ring is formed in front by a *left* brachio-cephalic trunk, the first part of the left subclavian, and the communicating vessel between it and the descending aorta (this last he described as looking like a continuation of the ductus arteriosus); and behind by a posterior aortic arch, from which the right carotid and subclavian arteries take origin. After alluding to cases resembling the one in point, which have been described by eminent anatomists, and dwelling on the small proportion that have occurred, he pointed out the practical interest of the present specimen on the question of the possibility of any difficulty in swallowing being dependent on a deviation in the course of the large vessels, or the so-called "dysphagia lusoria," and concluded by saying that in the case under consideration there had been no symptoms of distress, either in swallowing or in breathing.

Dr. FAGGE described a large Muscular Tumour of the Œsophagus, which protruded into the interior of the tube at the bifurcation of the trachea; the patient had, however, no difficulty in swallowing.—Dr. POWELL had seen several cases in which death had resulted from an aneurism having ruptured after perforating the walls of the œsophagus, and yet no dysphagia had been complained of.

Dr. KING then related a case of Aneurism of the Aorta which ruptured into the left auricle. The veins, especially of the head, were described as turgid, the lungs gorged and emphysematous, the larynx healthy, the heart hypertrophied, the left ventricle dilated, the aorta enlarged by the aneurism, the sac of which opened into the left auricle in the neighbourhood of the sinuses of Valsalva.

Mr. GAY showed some parts of a case of Hernia, in which he had operated and returned the bowel after some difficulty, but which had subsequently proved fatal. The post-mortem examination showed large quantities of blood in the abdominal cavity and between the layers of the mesentery; the intestine presented deep-coloured patches, and contained some clots of blood. He drew the attention of the Society to the probability of transudation from the mesenteric veins brought on by constriction of the mesentery.

The meeting then adjourned.

CLINICAL SOCIETY OF LONDON.

AT a well attended meeting of this Society on the 13th inst., Prescott Hewett, F.R.C.S., President, in the chair,—

Mr. R. BARWELL related two cases illustrative of Reflected Irritation, which occurred simultaneously in his practice at the Charing-cross Hospital. He commenced by saying he believed all cases of spasmodic disease clearly traceable to some local cause of clinical importance. The first (unilateral trismus, traumatic) was that of a lad aged fifteen, who was quite unable to open the jaw on the fourteenth day after a scalp wound laying bare a large part of the left temporal fascia and the left side of the occipito-frontalis tendon; the left corner of the mouth and cheek were drawn backwards and upwards, giving that side the trismic expression. When the wound was nearly healed, the contraction began to abate, and he could soon open his mouth, but always to the left side. A remarkable fact in this case was that during sleep the jaw fell open. The reality of the symptoms was proved by several tests.—A short discussion followed, in which Dr. ALTHAUS remarked that unilateral cases were very rare, though several are on record.—Dr. SOUTHEY asked for an explanation of the curious fact of the affected muscles being relaxed during sleep, and Dr. MOXON inquired if the affected muscle was swollen.—Mr. BARWELL, in answering, said he was certain it was a real case of trismus; the masseter, he said, was contracted, the temporal less so and not swollen, and he thought the external pterygoid was affected. He then proceeded to read his second case (severe epilepsy cured by excision of a neuroma), which was that of an old soldier, who, two years after the loss of an arm in India, had begun to suffer from epileptic fits, which gradually became severe. He was admitted under Mr. Barwell's care with a wound of the radial artery. On examining the stump a neuroma was found, any pressure on which produced a fit. About three weeks after admission, the fits having become very frequent and prolonged, Mr. Barwell cut down upon and isolated the neuroma; he then forcibly stretched the nerves of the brachial plexus, and removed the growth. When seen more than two months after the operation the patient had had no epileptic fit, and seemed much improved in appearance and intellect. Microscopic examination showed the tumour to be a true neuroma.—Mr. BRUDENELL CARTER related a case of spasmodic twitchings of the left side, giving rise to epileptiform convulsions, coming on in a woman after recovery of sight in the eye of the same side. He recommended removal of the eye, and from the date of the operation there was marked improvement, and the patient was cured in six months.—Mr. WILLETT mentioned a case of Mr. Holden's in St. Bartholomew's Hospital bearing great similarity to that of Mr. Barwell's.—Dr. OGLE recorded an analogous case which occurred in St. George's Hospital, and thought this would have been a good opportunity to try pressure on the nerves to stop the aura.—Mr. BARWELL briefly replied.

Dr. BUZZARD read the notes of a case of Recovery from Melancholia after four years' refusal of food, and obstinate silence. The patient was a gentleman aged forty, who, having fallen into a profound state of melancholia, was sent to Dr. Stilwell's asylum, Moorcroft, where he remained four years. During all this time he was forcibly fed, dressed, and cared for, lying in a complete state of inertness, and rarely using a muscle voluntarily. Only liquid and semi-solid food could be given, and large quantities were administered, but he rejected a considerable portion at each meal. His weight fell from 11 st. 10 lb. to an average of 7½ st. A month before he left the asylum he suddenly woke up, as it were, into social life; spoke and ate; and, although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness, in which condition he remained. When asked to explain his behaviour, he said he had been under a profound sense of personal degradation, and had felt he was growing into a kind of monster unfit to live, or even to be seen. Stress was laid on the fact that a short time before his recovery he was told that a favourite child, whom he had not seen for a considerable period, would visit him. Dr. Buzzard thought the lesion in this case was not of a destructive character, but must have been functional or dynamic. He suggested that possibly in such cases if the patients were made less comfortable they might be provoked into throwing off their delusions sooner. He also touched on the question of bringing strong mental emotion to bear on persons afflicted in this way, and on any therapeutic measures which might be employed.—A spirited discussion followed, in which Sir WILLIAM GULL took the most prominent part. He did not think the preceding case was one of pure melancholia, and preferred terming it hypochondriasis. He mentioned a case of hypochondriasis in which the patient could not move the tongue or the legs, and which was at first mistaken by the medical man for paralysis, and then read extracts from the case of a gentleman, aged sixty-one, who in 1869, from a delusion that he would make his son the richest commoner in England, thought he could no longer afford to eat. He was removed to the Ticehurst Asylum. Since then he has taken no food voluntarily, but has been fed 8700 times by an œsophagus-tube, though in 1873 he wished for and drank a glass of water, assuring the attendant, however, he had not swallowed it. He had several times been very ill, but careful treatment had restored his bodily health. Sir William Gull deprecated the idea of any drugs having been

found to cure the condition of mind.—The PRESIDENT, Dr. OGLE, Dr. BLANDFORD, and Dr. ALTHAUS, also took part in the discussion, and related some interesting cases; the last-named did not agree with Sir William Gull with regard to therapeutics, and thought these cases might be treated at times with advantage by the continuous galvanic current to the cerebrum.—Dr. BUZZARD, in his reply, said he was disappointed with Sir Wm. Gull's remarks, as they did not aid him to find any mode of treatment. He had not tried the galvanic current in his case.—Sir WM. GULL supplemented his previous remarks by saying he still thought therapeutic remedies of no avail in such cases, but considered counter-emotion, and anything that will rouse, might be efficacious.

The meeting then adjourned.

Reviews and Notices of Books.

The Practice of Medicine. By THOMAS HAWKES TANNER, M.D., F.L.S., M.R.C.P., &c. Seventh Edition. Revised by W. H. BROADBENT, M.D., F.R.C.P., Physician to the London Fever Hospital, Physician to St. Mary's Hospital, and Lecturer on Medicine at St. Mary's Medical School. Two vols. London: Henry Renshaw.

WHEN a work has attained the popularity of this one, it has not much to gain or lose by the praise or blame of reviewers. We believe that it has had the largest sale of any medical book on the same subject. There is no necessity for entering into any lengthy notice of it, for we have done that on previous occasions. It is only due to its present able editor, however, to indicate the directions in which the most important changes have taken place, in the way of additions, revision, and rearrangement. It appears to have been thoroughly revised, and if it does not contain references to all the latest additions to medical science, none have been omitted possessing any practical bearing on the diagnosis and treatment of disease. The reason this work proved so successful was mainly in consequence of its practical character and the terse, almost dogmatic, style in which it was written; and to teach or write concisely and effectively, a dogmatic style must be adopted. The reader consults a book of this kind to get quickly to the conclusions at which the author has himself arrived on a given subject; to ascertain the most prominent or distinguishing features of a malady, as well as the most reliable methods by which it may be treated. Now, Dr. Broadbent has kept strictly within these limits; he has stood aloof from the discussion of different views and conflicting hypotheses, and been content to state in sufficiently plain terms the views and opinions that he considers to be the best founded or most reasonable and the safest to follow in practice, and to indicate rather than elaborate the line of evidence that appeared entitled to the most weight. In this way the practical character of the book has been in no way sacrificed or impaired, while it has been very much improved in several directions in which it was confessedly capable of improvement. Dr. Broadbent has imparted to the work a greater scientific precision of expression; he has rearranged the general diseases, bringing them together in some sort of natural relation; additions of importance have been made to the chapters on diseases of the nervous system, including a section on syphilitic affections; much additional information is also to be found in the parts devoted to diseases of the heart, especially with respect to mitral stenosis and the prognosis in morbus cordis generally, and in the pages on aneurism of the aorta, physical signs in pulmonary diseases, pneumonia, pleurisy, &c., and the employment of paracentesis in pleuritic effusion.

There is a new and admirably-executed section in the Appendix, which is one of the most useful and thoroughly practical parts of the book, contributed by Dr. Carey P. Coombs, on Electro-Therapeutics, and the subject of Skin Diseases has also undergone considerable revision and improvement, and forms an excellent epitome of our present knowledge of these affections.

We have said enough to prove that this edition of he work is not only calculated to maintain, but to increase he deserved popularity it has already attained.

The Micrographic Dictionary. Edited by J. W. GRIFFITH, Prof. MARTIN DUNCAN, the Rev. M. J. BERKELEY, and Prof. RUPERT JONES. Third Edition. Parts X. to XVIII.

WE are glad to see that in the later numbers the editors of this valuable work have strengthened their hands by the addition of a physiologist—Prof. Martin Duncan—to their number, an aid that was much needed; and there is accordingly a marked improvement in all the articles having reference to animal and especially to human histology. Even now, however, there are indications of many of the articles having been hastily done. Take, for example, the Liver. In this the account of the bloodvessels is correct enough, and the drawings (after Kiernan) are well known. The part dealing with the biliary ducts, and the cuts, are, however, utterly behind the time. The statements made in the text were very well ten years ago, but the recent observations of Hering, Eberth, Biesiadecki, Chrzonszczewsky, Frey and Irmingen, MacGillavry, and others, are altogether ignored, though in the brief bibliography there certainly is a reference to Hering's article in "Stricker's Human and Comparative Histology." These observations are, nevertheless, of extreme interest in reference to the progress of microscopy, and should certainly have received full consideration in such a work as this. We have the same objections to make to the article Lung. We are quite aware that the "Dictionary" was never intended to be a text-book of histology, but a good deal of histology is necessarily contained in it, and what is contained ought to be correct. In this very article it is said that the capillaries of the lung "only lie with a small portion of their diameter imbedded in the tissues of the alveolus, and the rest of their wall is free and in contact with the air of the cells." A few years ago this point was much discussed, and a host of eminent names might have been cited, some of whom did, while others did not, believe in the existence of an epithelium lining the alveoli; but such a discussion is a thing of the past, and the modern methods of staining with nitrate of silver and other reagents having proved indisputably that an epithelium does exist, though it does not everywhere present a homogeneous character, the statement in the text is certainly erroneous. In the bibliography reference is made to Verson and Max Schultze as the authors of the article on the Lungs in Stricker's "Human and Comparative Histology." But Max Schultze never wrote a line of it; the real author was F. E. Schulze, quite another man. The bibliographies of the several articles require thorough revision. Imagine a bibliography of the Lymphatic System, and neither Mascagni, one of the oldest, nor Teichmann, one of the most recent and best writers, being mentioned. Over and over again we notice early editions of modern books referred to, when second, third, or fourth editions have long been in everyone's hands. This we consider an evidence of gross carelessness, as it could be rectified with the least inquiry. In other cases the writer is evidently ignorant of important papers. Thus, in the bibliography to the article Mollusca, Huxley's "Elements of Comparative Anatomy" is referred to, though Mr. Huxley's paper in the English Cyclopædia contains a far fuller account of his peculiar views, and in fact is the best general account of the morphology of the class we at present possess, requiring but a touch or two to work it up to the present day.

Mistakes in spelling are of frequent occurrence. On page 537 we observe Krause spelt *Kraus*, and Prof. Cleland, in the two places where he is mentioned, is spelt *Clelland*, Waldeyer is spelt *Weldeyer*, Owsianikow *Owsienikow*. As spontaneous generation is given, why is not the word parthenogensis and its explanation introduced?

We are less able to criticise the articles on botanical subjects, and are disposed to rely upon Mr. Berkeley's ability to deal with the subject he has made his own; but even here it appears to us that there is a want of care exhibited in the working up of authorities and the results of recent labours. Take, for example, "Mucor." Is it possible that nothing, absolutely nothing, not one valuable investigation, has been made upon it since Fresenius, in 1850, wrote an article upon it? Has no paper been published upon "Muscardine," the silkworm disease, since Guérin wrote in 1851?

Whilst making these strictures, we do not wish to detract from the value of the book. It contains an immense amount of information not readily obtainable elsewhere, and useful to others beside the mere microscopist. The articles "Preparation" and "Preservation" are excellent, and the bibliographies to "Rhizopoda," "Raphides," "Rotation" and "Scales," are done as they ought to be done.

OUR LIBRARY TABLE.

Free Phosphorus in Medicine, with Special Reference to its Use in Neuralgia: a Contribution to Materia Medica and Therapeutics. By J. ASHBURTON THOMPSON. London: H. K. Lewis. — Mr. Thompson has collected a great deal of information on the nature and properties of a drug that appears to be gaining favour with the profession. That phosphorus in a pure state will ever become a trusted therapeutical agent we very much doubt. It is so uncertain a remedy that it is only likely to be exhibited when other means appear to be unavailing. A belief in the efficacy and safety of phosphorus in certain conditions of the sexual organs appears to have become very general. This is likely to prove mischievous. We think it is in very rare cases indeed, if in any, that its administration as a aphrodisiac should be countenanced. Its association in this direction tends already to discredit the drug. In certain nervous affections however, and in the continued exhaustion after fevers, it has often shown striking remedial effects. The author commences his work with a history of the drug since its discovery by Brandt until the present time. The pharmaceutical preparations, with the doses, are then given; after which the diseases in which the drug has proved useful are detailed, and its curative powers placed in a very favourable light. The book forms a compact guide to practitioners contemplating adding phosphorus to their medicinal armoury.

Note sur un Moyen simple, facile, prompt, et certain de Distinguer la Mort Vraie de la Mort Apparente de l'Homme Mémoire du Dr. A. MONTEVERDI DE CRÉMONE. Avec six Planches Oléographiques. 1874.—M. Monteverdi's simple, easy, prompt, and certain method of demonstrating the reality of death in man consists in the observation of a spot produced by the injection of a drop or two of ammonia beneath the skin. If the man be living the spot produced by such injection is always of a more or less vinous red, whilst if he be dead the colour is scarcely different from that of the skin itself, or, at least, has no purple tint. The comparative drawings which are appended to the memoir show this excellently. The solution of ammonia injected should have a strong odour of the gas, and a specific gravity of 0·92. If the individual be living, no bad effects are produced beyond a burning pain which lasts for a short time, and the reddish tint appears almost immediately. The spot appears to be due to the action of the ammonia on the capillaries and blood; and, as the motion of the blood in the capillaries and absorption are the last of the vital phenomena, the sign seems to be well adapted to the end in view.

Remarks on the Uses of some of the Bazaar Medicines and Common Medicinal Plants of India, &c. By EDWARD JOHN WARING, M.D. J. & A. Churchill. Second Edition. — The first edition of this useful little book appeared some fourteen years ago, having been specially prepared for the use of district vaccinators in India, whose sphere of work was removed from regular medical aid. The book soon attained a wide circulation both in English and in the Tamil tongue. We can quite believe that in its now enlarged and improved state it will prove acceptable to numerous classes in our Indian possessions, especially missionaries, and European and Eurasian officials situated far from the regimental or private doctor. An index of diseases, with the necessary treatment by means of remedies easily procurable throughout India, is given, as well as simple directions for treating cases of drowning, snake-bites, &c. We have no hesitation in recommending the book.

On Poisoning by the Inhalation of Coal Gas. By WILLIAM TAYLOR, M.D.—This pamphlet, reprinted from the *Edinburgh Medical Journal* for July, gives an account of a man who became comatose from sleeping in a room in which there was an escape of gas. When discovered he was deeply comatose, and recovery was attempted to be effected by artificial respiration, cleansing the fauces, stimulant injections per anum, and galvanism across the chest. The patient lived two days. He had breathed for several hours an atmosphere charged at most with 2 or 3 per cent. of gas. The author has collected a good many other cases from authentic records, and the paper is both interesting and well written.

The Monthly Microscopical Journal. No. LXXI. Nov. 1st, 1874. Edited by Dr. HENRY LAWSON.—This number contains—1. An excellent paper on Appendicularia, by Alfred Sanders. 2. An account of some new Diatoms, by Mr. Kitton. 3. Some final, and we trust the final, remarks on Immersed Apertures, by Mr. F. H. Wenham, as the discussion has been long drawn out, apparently without either of the combatants being convinced by the other. 4. The Filaria Immitis, by Mr. Welch. 5. A paper on the methods of preparing Diatoms for examination.

The Physicians' and Surgeons' Visiting List, Diary, Almanack, and Book of Engagements for 1875. London: John Smith and Co., 52, Long-acre.—We are in the habit of calling attention to this very excellent, compact, and trouble-saving publication, and we feel that in doing so we are simply performing an act of justice to the publishers for the care and trouble they have taken to adapt the work to the requirements of all the members of the medical profession.

BEQUESTS &c. TO MEDICAL CHARITIES.—Mr. George Vaughan, of Westbourne-terrace, has bequeathed £1000 to St. Thomas's Hospital, and £500 each to the London Hospital, the Middlesex Hospital, St. Mary's Hospital, Royal Orthopædic Hospital, Royal Hospital for Incurables, Royal London Ophthalmic Hospital, Charing-cross Hospital, Earlswood Asylum for Idiots, Surrey Dispensary, Highgate Small-pox Infirmary, Brompton Hospital for Consumption, Walton-on-Thames Metropolitan Convalescent Institution, and the Great Northern Hospital. Mr. George Brooke, of Springwood Hall, has stated his intention of defraying the expense of providing medicated baths at the Huddersfield Infirmary: about £1200. The Royal Westminster Ophthalmic Hospital has received £1000 from "W. R. T." The Royal Free Hospital has received £100, in addition to £250 previously, under the will of the Rev. Henry R. Bramwell. The Royal United Hospital, Bath, has received £100 under the will of the Marchioness of Thomond.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 21, 1874.

WE are living in an age of expostulations. There is a dogmatism in science as in other things; and it is very possible Professor TYNDALL felt that his expostulators were becoming troublesome. By the scientific exercise of his imagination the Professor had recently got altogether beyond the limits of experimental science into a position as unstable as the azure mists of which he spoke at Belfast. Expostulations and inquiries reached him from every side. As he was probably not quite clear as to his own meaning, he could not satisfy other people in regard to it. To cross the scent by raising another and fresh issue was a very clever stroke of policy, if such was one of the objects he had in view in publishing his recent communication on Typhoid Fever. It was but another scientific use of his imagination. Deeply impressed with the lucidity and logic of Dr. WM. BUDD's book, he committed himself unreservedly and enthusiastically to that author's views; but by this time he has probably discovered that what seemed to him a complete and general law was in truth partial and incomplete, and incapable, in the opinion of many who had given more years to the investigation of the subject than he had hours, of explaining all the facts it was intended to embrace. Professor TYNDALL was not warranted in mentioning as a "crowning fact" that Dr. KLEIN had recently discovered the very organism which lies at the root of all the mischief. It is one's duty to expostulate with scientific men who think that, by a sort of hurried holiday excursion across a narrow tract of country, they are in a position to lay down a general law as to what they did not see from the little they did—with the aid of other people's spectacles. It is so easy to decide when one side of a case is heard that we can sympathise with the magistrate who declared he always acted on that principle, because he was only bothered by hearing both sides; but we expect something different in the possessor of a trained scientific intellect. Professor TYNDALL is a brilliant experimenter, and a lucid writer and speaker; but he has more of the qualities of an advocate than of a judge, and it is not very reassuring to his admirers to find him ever and anon popularising other men's labours by his clear style of exposition, and dogmatising thereon. It seems all so obvious to the popular mind that they regard the doubts and objections raised by medical men as the outcome of class prejudices and narrow views; whereas it is exactly the reverse. To despise system is to despise philosophy, for it is the aim and end of philosophy to systematise facts; but it is because of the larger outlook and wider field of observation of the medical profession that, while they are willing enough to embrace and act upon any fragment of truth, they refuse to arbitrarily relegate facts to any law under which they do not naturally fall, or they hold their judgment in suspense and wait for more light.

Now we propose to state as clearly as we can the scientific position of this question of the causation of typhoid fever; and we venture to say that, even if the view advocated by Professor TYNDALL be exclusively the true one, his practical application of it would not have the effect that he supposes. It requires something more than the emphatic putting down of the foot of a modern physicist, however eminent, with the aid of chemicals, however powerful, to stamp out typhoid fever. It is a disease having the widest geographical limits, and appears in all classes, in different climates, and under apparently dissimilar conditions. We have no absolute proof that we can by the action of so-called disinfectants deprive organic matter of its acquired infective properties; and, if we had, the lavish use required to be made of these agents would render their effective employment impracticable. It is, after all, a question of common sense and cleanliness; and, paradoxical as it may seem, it is nevertheless very near the mark to say that the use of disinfectants had better be relied on only where their use is no longer necessary, because in that case they are not likely to conceal what they do not remove. The first question is whether Professor TYNDALL be sufficiently acquainted with all the evidence to warrant him in declaring so emphatically as he has done that there is one only true doctrine capable of embracing all the known facts, and that he and Dr. WM. BUDD are its prophets. We wish to speak of Dr. WM. BUDD with all respect. He looks to continuous succession as the sole and exclusive explanation of the spread of this disease; and in a book which is a model, in its way, of compact and lucid arrangement, logical reasoning, and felicitous style, he has most ingeniously worked out this view of its propagation. On the other hand, there is a large body of observers, among whom we may take Dr. MURCHISON as the chief in this country, who, while they concur generally as to the communicability of typhoid fever from the sick to the healthy in the way and by the methods which Dr. BUDD has indicated, hold that it is nevertheless impossible to explain all, or anything like all, the cases encountered in practice by the light of this law. Both classes are agreed in respect of the specific nature and infectious properties of the excreta derived from a typhoid fever patient; but one class contend that this disease may originate, under certain conditions, from the action on the human organism of the products of fæcal fermentation and sewage, quite irrespective of specific materials derived from a typhoid fever patient. Why this discontinuous origin of typhoid fever should be thought almost impossible by an evolutionist like Professor TYNDALL is passing strange, for he holds that molecular force is the agency by which plants and animals are built up, and that "not alone the mechanism of the human body, but that of the human mind itself—emotion, intellect, will, and all their phenomena,—were once latent in a fiery cloud." Dr. BUDD considers that the evidence upon which the hypothesis of a spontaneous development of typhoid fever rests is negative only, and consists in our inability to trace the continuity of a chain whose connecting links are invisible. To conclude from this that no such chain exists is absurd, for the same evidence would prove the spontaneous generation of animals and plants. But, stated in this way, the parallel and inference seem to us alike unfair. There is nothing like the same amount of evidence in the one case as in the other;

and it would require a large preponderance of facts on the side of the contagionists to prove the correctness of the parallel. The great number of cases that seem to occur independently of other cases will remain unexplained, as well as those frequent occurrences wherein intestinal fever has suddenly appeared in a limited and previously healthy locality concurrently with a foul state of sewage and the fæcal contamination of soil, air, or water. There is nothing more sure than that typhoid fever is not infectious in the same way or in the same degree as small-pox, scarlatina, or typhus fever; and it is generally admitted that a case of typhoid fever may be treated in a house or hospital ward, where the drainage and ventilation are alike good, with relative safety as far as the healthy are concerned, provided that ordinary care and attention to cleanliness be exercised. When a succession of cases occurs in the same house, the disease is more likely to have been indigenous than imported, and in either case the existence of some grave insanitary condition may be safely prognosticated in regard to that house. The records of the London Fever Hospital show that during nine years 3555 cases of enteric fever were treated in the same wards with 5144 patients not suffering from any specific fever, without one of the latter having contracted enteric fever, although the use of disinfectants was quite exceptional. That you may have a foul drainage and polluted atmosphere without typhoid fever is nothing to the point; for no one doubts, whether he holds that the morbid cause be a specific product or not, that you must have several factors, or concurring causes or conditions, as necessary antecedents to an outbreak of the disease. The poison, whatever it is, seems to have a very circumscribed sphere of action. It affects a certain house and tenaciously adheres to it, attacking the residents in it with unfortunate frequency it is true, but rarely extending to the visitants of that house. And the mere fact that the first case that occurs in a household where insanitary conditions exist happens to be in the person of a newly-arrived individual, fails to establish that the disease was introduced; for it is in accordance with physiological laws and ordinary observation that those freshly exposed to morbific agents are most susceptible to their action. At a late discussion at the Medical Society of Munich a long and very interesting debate occurred, in which some of the most distinguished medical men of Germany took part; and the question of the causation of typhoid fever occupied very much the same position there that it does in this country. Professors v. GIETL, WOLFSTEINER, and others supported the exclusive view of BUDD—indeed, the former (v. GIETL) has held that view for very many years; but Professor RANKE and Dr. FRIEDRICH took up a position very analogous to that held by the majority of the profession in this country and America.

THE Address on American Surgery recently given by Mr. ERICHSEN at University College Hospital, which we publish to-day, is a well-deserved and eloquent tribute to the merits of our professional brethren in the United States by one who, by his long experience as a hospital surgeon and teacher in this country, has peculiarly fitted himself to appreciate at their full value the labours of others in the same extensive fields. That Mr. ERICHSEN's warm appreciation of the labours of our Transatlantic brethren will be gratifying to those who showed him such unbounded hospitality we cannot doubt; in fact, the letter which we published last week from some American surgeons who happened to hear his address, shows that the sentiments expressed in it were fully appreciated by them.

American hospitals, like other institutions, partake of that magnificence which appears to characterise all public works in that country. The new hospitals which are rising in all the great cities possess features essentially their own, which will, we trust, obviate many of the difficulties and dangers with which European surgeons have to cope. It is impossible to read Mr. ERICHSEN's description of the hospital being built at the Soldiers' Home, near Washington, without mentally contrasting it with the last effort at hospital construction in London, where half a million was expended in bricks and mortar to place on the banks of the Thames a straggling building a quarter of a mile in length, the expense of keeping up which is so great as to prevent the whole of the wards being opened for patients! As regards ventilation, we have certainly much to learn, and no doubt also might gain some hints on the construction of our waterclosets and laundries, which are now for the most part sources of mischief to those who inhabit the wards of our hospitals.

The methods of teaching which have been adopted in order to meet the requirements of large classes of students might well be introduced into our own hospitals, though the practice of bringing the patient before the class in the lecture-theatre is a plan which has long been adopted to a limited extent in this country, and was a prominent feature of the late Mr. SYME's clinical teaching. The absence of museums must be a great drawback to the study of disease; but it must be remembered that fully-furnished museums are things of recent date in this country, and that it is only of very late years that catalogues have been made and printed for the use of the student in some of our leading schools. Judging from the official catalogue, which has already been noticed in these columns, and from the profusely illustrated army medical reports which reach us from time to time, we believe that the praises given by Mr. ERICHSEN to the museum of the Army Medical Department is no more than it deserves; but though our Netley museum is necessarily on a much smaller scale, we cannot pretend to wish for such a civil contest as the late American war in order to supply material for its enlargement.

WE have hesitated in our criticism of the Hospital Saturday Fund movement till the appearance of the Report of the Council of the Fund makes hesitation unnecessary. The Report is the condemnation of the whole proceeding. It is the most apologetic document that we have read for a long time, and, on the *qui s'excuse s'accuse* principle, almost supersedes further condemnation of a movement begun by the most inexperienced persons that could have been found in London. Captain MERCIER, in one of his recent speeches, said that "Hospital Saturday might ultimately result in the collection of £50,000 or £60,000." "Ultimately" is a convenient word, which we give the Captain

the full benefit of. Meantime less than £6000 has been brought into the treasury, and the expenses of collecting this will not be less than £1500! This would leave a sum of £4500 gathered from all London, leaving out church congregations, and collected by the most forced and unsatisfactory devices, such as a lady standing with a table in the streets like "Patience on a monument," or small boys stationed with boxes in public thoroughfares. Capt. MERCIER, with the strong instinct of the Volunteer, took care to provide the boys with uniform, which, with their wages, absorbs half or 50 per cent. of what the benevolent public put into the boxes. But, by way of comfort, let us remember there remain the uniforms, in which the youths, not themselves Volunteers, or some other youths whom the clothes may better fit, may live "to fight another day." Meantime, for the miserable failure of this grand emprise Captain MERCIER blames everybody but himself—the chief mover therein. His excuses are ingenious. The delay and negotiation involved in detaching the Hospital Saturday from the Hospital Sunday increased the expenditure. "The Council of the Hospital Saturday had no precedents to guide them"—the greater the reason for modestly leaving the matter in the hands of a Council which had received spontaneously from the working classes the year before nearly £2000. "In the early stages of the movement the Council did not receive that support and encouragement from the Press which they felt its importance merited." Clearly the press felt otherwise, and it is not slow to detect real merit in sound benevolent undertakings. Then the Council falls back on an indisputable point—the futurity of any "fruits of their labours." The Council feel that the fruits of their labours have still in a great measure "to be reaped, and they are receiving frequent assurances of co-operation in the future." "Hope springs eternal in the human breast," and the mind that can see nothing but failure in the past sees nothing but success in the future. The total working population of London — 824,269 males and 411,631 females, in all 1,235,900—have only to be educated up to giving, the men a shilling a year and the women sixpence, by Captain MERCIER and his colleagues, to yield a sum of £51,500. Be it so. We think that Capt. MERCIER should be punished for his hardihood in undertaking this movement, by being required to continue at its head until he voluntarily asks the Council of the Hospital Sunday Fund to relieve him. It is clear, in our opinion, that the working classes repudiate the separate organisation, at least under its present management, which we have said is singularly inexperienced. Capt. MERCIER represents a hospital which has no beds—in other words, has no public confidence, and could not take in six working men in a year, were they ever so bad. What confidence can working men have in a Fund the chief spirit of which is the treasurer of a bedless hospital? It will be interesting to see what award the Council will make to St. John's Hospital for Skin Diseases, and whether they will reward the treasurer thereof, by giving that encouragement which the public withholds, and enabling a bed or two to be put up therein. We do not believe that the working men will in the future, any more than this year, feel confidence in a fund that is so headed and led. We differ from some contemporaries in not thinking the less of them for their holding aloof from this movement. They ought to uphold the hospitals and dispensaries. They ought to do it upon a system of weekly contributions. They are to be blamed for receiving medical help so much as a charity. But they may be excused for withholding their shillings from a scheme in which the shillings become sixpences, and the remaining sixpences are in danger of going to hospitals which can offer no accommodation.

SOME interesting observations have recently been made by RANVIER, the well-known and able French histologist, upon muscular tissue, the results of which have been published in the *Comptes Rendus* and the *Archives de Physiologie*. Everyone is aware that the muscles of some animals—birds in particular—present remarkable differences of colour, some being of a deep brown or red, others of a pale tint. The same holds in regard to the rabbit, in which the semitendinosus is red, and is imbedded in the pale substance of the vastus internus. The adductors, again, in the same animal, are composed of red and pale fibres intermixed. The same difference is found in the muscles of some fishes, as in the torpedo and ray. The difference of colour is not dependent upon the different amount of blood they receive; for if serum be injected into the vessels the white muscles become still paler, but the red preserve their colour. RANVIER states that the two forms of muscle, when exposed to electrical excitation, behave differently. The *red*, when excited with interrupted electrical currents, gradually and progressively shorten. If the muscle be once shortened, it remains so, without communicating any vibration perceptible to the hand holding the electrical forceps like that produced by ordinary muscles. When the excitation ceases the muscle gradually resumes its former length. The *white* muscles, on the other hand, when excited by the same current, suddenly contract, and, as long as the excitation lasts, exhibit contractions corresponding to each interruption. When the excitation ceases they suddenly return to their original length. In one experiment the semitendinosus of the rabbit (red muscle) was exposed for one-seventh of a second to an induction current, which was interrupted 357 times in a second. The muscle at once passed into tetanus, and the apex of the myographic curve retained a uniform height throughout the period of contraction. When the same current for the same time was transmitted through the adductor longus (pale muscle) the myographic curve showed as many crests as there were interruptions to the current. In another experiment, in which there were fifty-five interruptions of the current in the second, the semitendinosus was thrown into a tetanic state, whilst the adductor marked the several interruptions. This peculiarity distinguishing the two kinds of muscle is as visible when the muscles are excited by direct as by indirect means, and is therefore dependent upon some profound physiological or anatomical difference. The period of latent excitation was also found by M. RANVIER to differ in the two instances. In the case of the pale muscle it amounted to one-eighty-third of a second; but for the red muscle it was as long as the one-eighteenth of a second, or four times longer. After death the red muscles lose their excitability much sooner than the white. In regard to the histology of the two kinds of muscle, the fibres or primi-

tive fasciculi have the same diameter in both (0·040 to 0·060 mm.) The transverse striation of the pale fibres is very distinct, whilst their longitudinal striation is scarcely perceptible. In the red fibre exactly the opposite obtains. The transverse striæ in particular do not run straight across the whole fibre, but present broken lines. The red fibres have many more nuclei in their interior than the white. Each pale fibre possesses from one to four flattened nuclei lying immediately beneath the sarcolemma. The red fibres have from four to nine in the same position, whilst there are frequently others in their interior. In the rays and torpedoes the red fibres are much finer than the white.

Medical Annotations.

"Ne quid nimis."

THE NAVAL MEDICAL SERVICE.

THE Naval Medical Service is not a seniority service, nor is it desirable that it should be, for unless the Director-General were allowed to select for promotion officers who have displayed talents for the performance of the important duties, both professional and executive, which fall to the lot of the inspectorial rank, the service would soon become disorganised, and liable to encroachments on the part of the so-called executive branches. It is not to be forgotten that it is to Sir Alexander Armstrong that we owe the removal of the post-captains who used to hold sway in the naval hospitals, and issue their orders to the Inspector-General who was in charge of the wards; and, thanks to the tact and energy displayed by the medical officers who have successively held office at Haslar and Plymouth, the Admiralty have had no excuse for putting two post-captains into the snug berths from which they had been so properly ousted. But those with strong interest still eye the inspectors' houses askance, and would be only too glad to catch the medical department tripping, in order with a good face to upset the present arrangement.

Under these circumstances the choice made to supply the vacancy in the list of deputy-inspectors caused by the recent promotion of Dr. Mason must be viewed with some anxiety; and though we hold that seniority alone does not form a claim for recognition, yet we see no reason why the seniors on the list of staff-surgeons should be passed over without very good reason. Dr. Watt Reid and Dr. Irwin, C.B., were promoted out of their turns for services in the Ashantee war, and their cases were therefore exceptional; but the claims of the senior staff-surgeon, Mr. John Bernard, cannot longer be ignored. This officer, it may be remembered, succeeded Dr. Stirling in charge of the hospital at the Cape of Good Hope at a time when Commodore (now Admiral) Randolph had brought matters between himself and the medical staff to a most critical condition. That Mr. Bernard should have been able to hold his own under the circumstances, and should have served in charge of a foreign hospital for five years, gives him, we think, good claims for promotion.

WHO IS RESPONSIBLE?

THE following facts give a fair example of the duties and responsibilities of a prison surgeon. On Wednesday, the 11th inst., Mr. Bedford, the coroner for Westminster, held an inquest upon the body of a woman who died in the Westminster House of Correction, being at the time under sentence of penal servitude. She was sent there in December, 1872, and in November of last year Dr. J. S. Lavies, surgeon to the prison, being convinced that she was dangerously ill, and acting upon special instructions issued by the Home Secretary in accordance with the Prisons Act of 1865, made a statement in writing to the visiting justices, and recommended her release. This statement, in accordance with established rules, was forwarded to the Home Office, and some few days afterwards an inspector from that department visited the prisoner, but no action was taken. On three subsequent occasions — viz., in March, April, and August of the current year—Dr. Lavies, in forcible terms, repeated his written recommendations, which were duly forwarded to Whitehall, and which resulted in another visit from the inspector, who does not, however, appear to have conferred with Dr. Lavies as to the nature of the disease or the special grounds on which the surgeon made his statement. The woman died, and tubercles were found in the lungs. At the adjourned inquest the jury were informed that in the opinion of the inspector "the deceased was better off inside the prison than she could possibly be outside," and there the matter ended. It chanced (but this is a mere coincidence) that the Home Office inspector in this case was a medical man. It does not very much concern us to inquire into the precise symptoms or malady under which this unfortunate woman was labouring. But it concerns the members of our profession very much to know why an important department of Her Majesty's Government, having entrusted the surgeon of a prison with the medical charge of about a hundred persons, deliberately ignores the opinion of this officer, and that as to a point with the true bearings of which he only could be properly acquainted. The fact that the deceased had no home does not warrant the line of action, or rather inaction, adopted, for Dr. Lavies most distinctly intimated to the jury that, in his opinion, the confinement was killing his patient; and, after some twenty years' experience of the establishment, he was not likely to be duped by dodges or malingering. The sum of the matter is this, that in all such cases the representative of the Home Office should sift the matter thoroughly by conferring with the responsible officer concerned, and we doubt not that the adoption of this natural mode of investigation in its integrity would always prevent the occurrence of what, to use a mild expression, must, in this instance, be deemed a most unfortunate mistake.

FEVER CASES IN ST. BARTHOLOMEW'S.

THE new Treasurer of St. Bartholomew's Hospital is too much interested and too well informed in hospital administration to be a mere treasurer—though in the case of St. Bartholomew's that were function enough to "fill the ambition of a private man." We gather that Sir Sydney Waterlow has invited the Medical Council of St. Bartholomew's to confer with him on several questions of the first importance in hospital administration, and that these are still under consideration. Amongst the questions thus raised is that of the administratorship of chloroform in the hospital; the desirableness of providing a padded room, or more than one; the arrangements of the casualty department, as regards the number of medical and surgical officers, the accommodation and the number of patients; the mode of admitting in-patients from the out-patient department; the mode of selecting dressers, house-physicians, and house-surgeons, with a view to the selection of the best qualified; and the provision of separate wards for cases of contagious fevers. Our readers are aware that the admission of fever cases into general wards is a question on which we feel strongly. We have lately had to complain of one or two hospitals in London, notably King's College and St. Thomas's, admitting cases of typhus into the general wards of the hospital. From the fact of this question being

raised in St. Bartholomew's Hospital, it clearly is a practice there. And, indeed, we are sorry to say that it is within our own observation that cases of scarlet fever have been knowingly admitted into the wards of St. Bartholomew's. Under these circumstances we are exceedingly glad to hear that Sir Sydney Waterlow has determined to discuss this question with the medical staff. Our opinion is, that with the now abundant provision in London for cases of infectious fevers, the admission of them to the general wards of hospitals is altogether unjustifiable. The only argument in favour of it of any value is derived from the fact that students require to see fever cases as a part of their education. But such a fact is no justification for subjecting ordinary and unsuspecting patients to the risk of contracting dangerous fevers. Every student can see fever cases by a judicious use of the ample clinical field of the fever hospitals, or that of private and dispensary practice. If fever cases are to be admitted into the general hospitals, not only separate but detached wards should be provided. It is a terrible satire on the elaborate structure of St. Thomas's Hospital, that even there separate accommodation cannot be given to fever cases. It would be well for the public if every hospital had a treasurer so intelligently concerned for the public interest as the treasurer of St. Bartholomew's shows himself to be. It is gratifying to find Sir Sydney also directing attention to the out-patient department question. We hold that whatever is done in this department should be well done, in the interest alike of the patients and of the students. For purposes of future practice, the lessons of the out-patient department are not a whit less useful than those of the wards.

SIR RANALD MARTIN, C.B.

WE learn on good authority that Sir J. Ranald Martin has tendered his resignation of the appointment that he has so long and so honourably held at the India Office. We are glad to state, however, that Sir Ranald seeks his well-earned repose from official duties whilst yet in good health. A career so distinguished and useful, extending over nearly sixty years, should not be allowed to conclude without some reference to the services by which it has been signalised. Almost from the year 1817, when this officer entered the service of the Honourable East India Company, on the Bengal Medical Establishment, has his name been connected with some work or other for the benefit of his countrymen in India and Europe. At the General Hospital of Calcutta Sir Ranald laid the foundation of that experience which led to the introduction of those modifications in the treatment of disease, and furnished the materials for those contributions to scientific medicine and public sanitation, and especially to the well-known work "On the Influence of Tropical Climates," with which his name is associated. In 1821 he served with distinction in charge of the Governor-General's body guard during the war with Burmah. Up to 1838 he continued in active practice at Calcutta, when failing health necessitated change, and in 1840 he retired from the service amidst general and public expressions of regret. In England his merits were quickly recognised, and his name soon became, what it still is, familiar as a household word in reference to tropical disease. Up to 1859, when he was appointed to his present office, with the rank of Inspector-General, his public services were numerous and important, whether as member or president of sanitary and medical boards, or committees of investigation into these and kindred subjects, for Sir Ranald was among the pioneers of modern sanitation and State medicine. In 1843 he was elected Fellow of the Royal College of Surgeons, and in 1845 a Fellow of the Royal Society. In 1860 the honour of knighthood was conferred on him, that of Companion of the Bath having been granted at about the same period. It is well known that in 1852 Mr. Sidney Herbert, then Minister for War, recommended that he should be created a K.C.B.—a recommendation which, from some cause or other, was not acted upon. No public recognition of his great and varied services can add anything to the great respect and affectionate regard in which he is held by the medical profession and a vast circle of acquaintances, but the occasion of retirement seems to us to afford the present Government a graceful opportunity of carrying out Mr. Sidney Herbert's intention regarding one of its oldest servants, who has been no less distinguished and honourable in his public career than blameless and irreproachable in his private life.

TARIFF OF MEDICAL FEES.

WE have been favoured with a tariff of medical fees, founded upon that of the Manchester Medico-Ethical Association, unanimously agreed to at the annual general meeting of the Shropshire Ethical Branch of the British Medical Association, held in Shrewsbury on October the 9th. The tariff, and the explanatory notes which accompany it, are characterised by much reasonableness and common sense. We cannot give particulars, but we may state the general principles of the framers. They may be expressed thus: that, all things considered, medical charges must turn upon rental rather than upon income, though, abstractly, the latter is the proper criterion; that medical men should found their claim to remuneration *solely on the value of their time and skill*, and altogether ignore the objectionable system of drug payment. Even where medical men seem unable, from the force of tradition or custom, to charge separately in the ledger for drugs, they recommend the entire omission "of the degrading system of drug details" in the bill. A tariff is supplied for the use of those who are still bound down by old customs. We confess that we should rather that this tariff No. 2 had been omitted. It is too absurd nowadays to see a scale of charges to this effect: Visit within the postal district, 1*s.* to 2*s.* 6*d.*; an 8 oz. mixture, 2*s.* 6*d.* to 3*s.* 6*d.* If any practitioner charges on such antediluvian principles, he should not have the satisfaction of seeing them embodied in a pamphlet emanating from an Ethical Society. A more severe satire on a practitioner could not be passed than to say that, while his bottle was worth 2*s.* 6*d.*, his visit was worth only one shilling.

THE ASYLUMS' BOARD HOSPITAL AT HAMPSTEAD.

THE Hampstead people have taken alarm at the prospect of the Metropolitan Asylums' Board Hospital there, now used for imbeciles, being again devoted to a contagious disease—in the present case, to scarlet fever,—and ultimately rebuilt as a permanent structure. At a recent meeting of the Vestry a committee was appointed to take all necessary measures to obtain the removal of the hospital. The objections urged against it were the same as were urged against the first building of the hospital for relapsing fever, and against its subsequent use for small-pox. The injury to the local property-holders was enlarged upon, and Mr. Alford once more talked of the tendency of contagion to descend and not to ascend, and depicted the contagion of scarlet fever, as he had before depicted the contagion of small-pox, flowing from the hospital down the valley of the Fleet into the heart of London. That the hospital when used for contagious diseases must damage, and that it has damaged seriously, neighbouring property, hardly admits of question; but to rest any serious action for its removal upon arguments such as those advanced by

Mr. Alford is simply to court failure. If the hospital when used for small-pox was mischievous to Hampstead from disseminating the disease among people there, it must be quite practicable to show this by definite instances, and until this be done we advise the Vestry to omit such arguments from the list of their objections. It is difficult, however, to believe the Vestry serious in the matter. The objections to the hospital are not more serious now than when small-pox was admitted to it. When the small-pox epidemic ceased, so apparently ceased the objections of the Hampstead people. Their objections to the hospital being used for small-pox, as to its being used for scarlet fever, were raised at a time when a more imperious public necessity had to be considered. If Hampstead wants to be rid of the hospital, it must work in the intervals, not during the extension of epidemics. The Asylums' Board would in no sense be justified in giving up the hospital while hospital-space was pressingly needed for the metropolis. The hospital ought never to have been placed where it is, although the Asylums' Board had much justification in securing the site under the exigencies of relapsing fever; but Hampstead weakens her case against the Board and deprives herself of such sympathy as she deserves by raising the question only at times when the public necessity for the hospital is most pressing.

THE DWELLINGS OF THE POOR.

THERE would at length seem to be a chance that some of the sanitary promises of the present Government will ere long be fulfilled. The Metropolitan Board of Works and the Home Secretary appear to be of the same mind in the matter of the dwellings of the labouring classes, and if the Board and the right honourable gentleman will only lay their heads together there is some prospect that Parliament will grant the necessary powers for converting our fever-hovels into wholesome houses. At a recent meeting of the Board the following resolution was passed unanimously:—"That it is urgently desirable that the dwellings of the poor should be improved, and this Board will give its best consideration to any measure which may be introduced by Government for effecting that object." Mr. Freeman, in proposing this resolution, made, in the course of a most excellent speech, many very pertinent remarks. He said:—"In St. Giles's they had about 3000 families, each family living in one room. The number of people covering an acre of ground there was 235 in one district, and about 400 in the other. If the average of the model-houses—the Peabody, for instance—were taken, there would possibly be 1000 people on every acre of ground. The mortality of those people living each family in one room was from 40 to 60 per 1000; the mortality of the people in the buildings was 15·8, and the average mortality of London 21·5." If these figures be correct, they mean that the average lifetime of the dwellers in the St. Giles's and similar hovels is twenty years, while the dwellers in model buildings live more than three times as long. In face of facts like these it is difficult to understand the argument of those who contend that the labouring classes ought to live in the suburbs—i.e., in unhealthy, cheap, undrained districts, often beyond the pale of sanitary legislation, and in adulterated houses whose foundations are rotten, whose walls are scarcely weatherproof, and whose owners but too often belong to the most unscrupulously dishonest class to be found among us.

On Saturday last the Home Secretary inspected a new block of buildings which has recently been erected at Clerkenwell by the Metropolitan Association for Improving the Dwellings of the Industrial Classes. The blocks contain lodging for 1300 persons, and stand on three-quarters of an acre of ground. They consist of tenements of two, three, and four rooms, each of which is provided with the necessary water-supply, waste-pipes, sewer-pipes, and dust-bins. The rent ranges from 4s. 9d. to 10s. a week; and previous experience leads the Company to expect a return of at least 5 per cent. Mr. Cross expressed himself greatly pleased with what he had seen, and stated that it was his intention to visit some of the crowded and unimproved parts of London. We hope he will; for we feel sure that he has but to visit the garrets of Soho and the cellars of St. Giles to change his good intentions into active measures for sweeping away what is in fact a standing disgrace to the richest city in the world.

THE ERITH, CRAYFORD, AND BELVIDERE COTTAGE HOSPITAL.

THE foundation-stone of a new building for the above charity was laid in Erith on Saturday, November 14th, by Sir C. H. Mills, Bart., M.P. The hospital has now existed for more than three years, its working has been most satisfactory, and it has been a great boon to the neighbourhood. Six beds have been in almost constant use, and the numbers of cases admitted in the three years have been 55, 54, and 67, of which 38, 43, and 51 are reported as cured, while the total number of deaths has only been 8.

The working expenses in the past year amounted to £267 5s. 11d., equal to 23s. per bed per week, a most moderate and satisfactory average, the credit of which is mainly due to the careful supervision of the lady visitors. Some very serious operations, including one ovariotomy, have been performed in the hospital, and their great success has attested not only the skill of the honorary medical officer, Mr. F. B. Jessett, but also the favourable conditions which prevail in these small, fresh, and not overcrowded institutions.

The new building is to be erected by Mr. Herbert Ford, of Aldermanbury, at a cost of about £1500. We have examined the plans, and they appear to be in every respect excellent. There will be six wards with nine beds, each ward ten feet high, with windows rising to the ceiling. A bath-room, a convalescent ward, an operating-room, a nurse's-room, a committee-room, besides kitchens, &c., will also be provided. The whole building will be fitted with Jennings' patent ventilators (kindly presented by Messrs. Jennings), by which a free supply of fresh, and in winter of warmed, air is carried to the top of each apartment, and allowed to circulate downwards, thus avoiding draughts and saving fuel. The situation, though in the heart of the village, is sufficiently open, and as the death-rate in Erith is only 13·5 per 1000, it may be presumed to be healthy. Nearly £1000 has already been collected towards the expense of the new building, and it cannot be doubted that the deficiency will soon be made up and the charity relieved from any permanent charge.

UNQUALIFIED PRACTICE IN AUSTRALIA.

IN the outlying portions of a great continent like Australia, men are not very likely to be particular about the diplomas of those whom they consult, provided they derive benefit from the treatment, and so far unqualified practice may be justified by the exigencies of the case. The profession may not unreasonably complain, however, when, as in a recent trial in Queensland, the presiding judge, Mr. Lilley, held the evidence of a chemist to be perfectly admissible, although he, to some extent at least, disagreed with a fully-qualified medical man as to the cause of death in the case in question.

The case was one of manslaughter by a South-Sea Islander, and Dr. O'Doherty, who made the post-mortem examination, deposed that the skull was unusually thin, and that a large clot of extravasated blood, the result of a blow,

had caused death. Mr. Frederick Block, a chemist, who had seen the man when dying, gave his opinion that the cause of death was "congestion of the brain, caused by the blow," and when his evidence was objected to as that of an unqualified man, the judge overruled the objection, and said, "he wished it to be understood that he should never consider it necessary that witnesses giving medical testimony must be duly-qualified medical practitioners, but in all such cases he should hold the proper course to be to examine the witness as fully as possible as to his experience in such matters, and then to let the evidence go to the jury for what it was worth. This certainly, in a colony like Queensland, is the course that commends itself to common sense. Any other, in a place where settlement is so extended, accidents so frequent, and medical men so scarce, would be to deny to the Courts the testimony of the best witnesses to be had, and very often to refuse the evidence of men who may be as well qualified as though they had half-a-dozen diplomas and the certificate of the Medical Board of Queensland to boot."

We do not hesitate to say that the representative of Majesty on this occasion went clean against the letter and spirit of the law of England and of the colonies. A chemist or anyone else may fairly enough give evidence as to simple matters of fact, but for him to venture opinions which a medical man is alone qualified to form is monstrous, and must lead to great perversion of justice. The Government of the colonies, not content with the qualification under the Medical Act, has instituted at Sydney a Medical Board, whose duty it is to inspect the diplomas of intending practitioners and grant a licence to practise. This is a very necessary precaution in a colony to which medical practitioners of all countries and with every kind of diploma come in considerable numbers; but what, it may be asked, is the value of this State recognition if it is openly set at naught by a judge upon the bench?

MORE AMERICAN DEGREES.

"THE cry is still they come, they come." *The Times* of Wednesday reports the satisfactory conviction of Thomas Barrett Stokoe, practising as physician in Lochmaben, Dumfriesshire, for a contravention of the Medical Act, which consisted in appending to his signature in a certificate of death the letters M.D., on the strength of an American degree. The case was brought before Sheriff-substitute Hope in the Dumfries Sheriff Court, at the instance of Mr. John Aitken, physician and surgeon, Lochmaben. The main point to be determined was whether a person holding a degree from a foreign university was entitled in this country to style himself a Doctor of Medicine. Doubtless there are many respectable foreign degrees against the holders of which no legal action would willingly be taken. But it is altogether otherwise with American degrees which can be bought for £10 or less. Such was the case here. A diploma was certainly produced from the Livingstone University in America and the Edinburgh University (!) of Chicago. But it is well known that degrees in America are as plentiful as mushrooms. And for the prosecution it was shown that Dr. Robertson, secretary to one of the colleges in question, and who is at present in London, had offered to grant a degree from the same university as that from which the defendant held his diploma for £10, without the necessity of a course of study, and without examination. Reference, too, was made to an analogous case decided in the English courts, in which the defendant was convicted for using the letters M.D. on his accounts. An attempt was made to adjourn the case, but failed, and the defendant was found guilty, and fined £2, with £5 4s. 9d. expenses, or fourteen days' imprisonment. It is greatly to be wished that the United States would consider this question, and withdraw the charters of the bodies which grant bogus degrees. The existence of them in great numbers brings all American degrees into some disrepute.

SCHOOL SHIPS.

AN official report has just appeared on the general and sanitary condition of H.M.S. *Britannia*, moored off Dartmouth as a training school for naval cadets. It will be in the recollection of our readers that the boys in this ship have on at least two occasions suffered from an epidemic of scarlet fever, and the wisdom of continuing the school-ship system has in consequence engaged the serious attention of the authorities at the Admiralty. The sum of the evidence adduced, however, goes to prove that the sanitary condition of this ship is and has been very fairly maintained up to the present time, and it is certain that neither trouble nor expense has been spared to render the *Britannia* in every way fitted for the uses to which she is at present applied. It is, of course, very difficult indeed to keep scarlet fever out of a ship occupied by young boys who, as belonging to the upper and middle classes, are scattered about the country during holiday time for at least eight or nine weeks of the year. It is easy enough to apprehend that the risks of zymotic importations are far greater under these circumstances than in the case of school-ships devoted to street Arabs and other youngsters, to whom a holiday would mean the streets and starvation. The sanitary condition of ships at fixed moorings, and constantly occupied by a large number of persons, is, as we have before remarked, worthy of more attention than it has hitherto received. We do not believe that floating hospitals (permanently occupied by the sick) are, or are likely to be, successes, on sanitary grounds. And we believe also that after a wooden vessel has been occupied for some years (say ten to fifteen), and stationary the while, the health of her occupants would be always best consulted by changing her, especially if during the period of occupation any epidemic has occurred on board.

RURAL SANITARY REFORM.

THE address of Mr. James Howard, the late member of Parliament for Bedford, on rural sanitary reform, at the Farmers' Club, on the 3rd inst., was characterised by great thoughtfulness and comprehensiveness. He discussed at some length the different questions of water-supply, drainage, overcrowding, arrangements of cottages, and sanitary organisation, as they affected rural districts, and called attention to the advantages which had accrued to towns from well-considered sanitary measures. Applying his observations to the case of rural districts, he remarked: "As farmers we have the deepest interest in raising a race of men 'strong to labour'; unquestionably the strength, moral and physical, of our peasantry depend, to a great extent, upon the sanitary conditions with which they are surrounded. There is nothing more certain than that the race cannot improve, but will degenerate, unless conditions are favourable."

In the discussion which followed, Mr. Albert Pell, M.P., took occasion to observe that the "sanitary rate" was cheaper than the "fever rate"; but he added that he "warmly opposed the appointments of medical officers of health, as unnecessary and sometimes mischievous. What were needed were good practical inspectors and engineers who could do effective work." Consistently with this view, no doubt when Mr. Pell is ill he considers it the highest achievement of practical treatment to be physicked by his housekeeper or his druggist; and it is obvious that he is forgetful of the apophthegm of the present Prime Minister

that the practical man (or, as our contemporary the *Pall Mall Gazette* has more aptly termed him, in relation to sanitary matters, the "two-foot-rule" man) is the man who perpetuates other people's errors.

THE MEDICAL COUNCIL AND THE UNIVERSITY OF OXFORD.

THE elevation of Dr. Acland to the chair of the Medical Council has made it possible for the University of Oxford to secure a seat for another of its distinguished members. Accordingly it has elected Dr. George Rolleston to be its representative. The Council may be congratulated on this addition to its membership. Professor Rolleston is a M.D. of Oxford, and a Fellow of the Royal Society. He is Linacre Professor of Anatomy at the University of Oxford, and physician to the Radcliffe Infirmary, &c., and is well known as the author of various important papers on physiological and other subjects.

A BATH COMMISSION.

THE Turkish Bath is a recognised therapeutic agent, and its portability would no doubt increase its applicability. We have therefore nothing to say against the objects of the "Patent Turkish Baths Company, Limited," but we do most strongly object, on behalf of the medical profession, to the method selected by the secretary of planting the shares he has to dispose of. We have received a circular sent to numerous medical men, in which the secretary writes: "I am authorised by the Directors to intimate to you that a *Commission of Ten per Cent.* will be payable to you upon all allotments of shares made on any application, forwarded to the Company, either upon your recommendation or by your instrumentality." This circular is marked "private and confidential"; but, as was lately remarked by a high authority under similar circumstances, "You have no right to insult me and then ask me to say nothing about it."

Two of the medical men who recommend the bath are also directors of the Company, three others are or were resident medical officers of hospitals, and the sixth is a practitioner who writes, "To hospitals, infirmaries, workhouses, public schools, and other institutions, your bath will prove a great boon, and to private families a great blessing!" When we add that the prospectus states that it is calculated that the profit on an outlay of £200 will be £198, we think the scheme will need no further recommendation.

THE UNIVERSITY OF EDINBURGH.

WE were last week enabled to lay before our readers Prof. Rutherford's introductory lecture, which we venture to think, in addition to containing several new views, may be regarded as affording an exposition of the true place which physiology holds in medicine, as well as a good exposition of the principles of physiological therapeutics. If we may judge from the number of students—some 160—attending Prof. Rutherford's class, his course of lectures is likely to prove very successful. The number of students in the Medical Department of the University is 100 over that of last year at this date; it is very probable, however, that the rectorial election has induced many to enter sooner than usual.

THE PUBLIC HEALTH ACT (IRELAND).

A DEPUTATION from the dispensary medical officers of Dublin and the Irish and Poor-law Medical Officers' Associations waited last week on the President and Fellows of the College of Physicians, and asked their co-operation in bringing the subject of the remuneration of medical officers of health under the notice of the authorities. It was finally arranged that the College of Physicians should appoint a committee to prepare a memorial for presentation to Sir Michael Hicks Beach in support of the wishes of the deputation; and that the College of Surgeons should be invited to join them in furthering this object.

FUNCTION OF THE OPTIC THALAMI.

PROFESSOR NOTHNAGEL, of Freyburg, gives in a recent number of the *Centralblatt* the results of a series of experiments he has performed on rabbits to determine the functions of the optic thalami. They are—1. That these ganglia have nothing whatever to do with the innervation of the voluntary movements. 2. After their extirpation no indications can be obtained of any direct disturbance of the sensibility of the skin. 3. They appear to have immediate relation to the muscular sense.

WINCHESTER.

FOR some time past a discussion has been carried on in the public press respecting the drainage and general sanitary condition of the town of Winchester. The statements urged by one side have been so emphatically denied by the other that there seems little chance of the true state of affairs being ascertained unless some impartial investigation is made. Therefore we intend that our Sanitary Commission shall shortly visit the town, and issue a report as to its condition.

DR. WHITMORE, medical officer of health for Marylebone, reports that the mortality in the parish during the month of October was at the rate of 19·91 per 1000 annually. The deaths from diseases of the zymotic class, of which scarlet fever was by far the most fatal, amounted to 63. An unusual number of malignant cases of scarlatina were registered, the interval between the attack and the fatal termination varying from a few hours to not more than two or three days. The disease at present is said to be confined to the northern division of the parish, and is chiefly prevalent amongst the infantile population of the crowded districts contiguous to Lisson-grove.

THE Vestry of Mile-end, acting on the timely suggestion of their medical officer of health, Dr. Corner, lately communicated with the School Board of London, urging upon them the necessity of adopting stringent preventive measures against the introduction of scarlatina into the educational institutions under their supervision. The School Board, in reply, have informed the Vestry that circulars will be sent to all Board Schools in the metropolis requesting the managers to give immediate information to the local authority of any cases of infectious disease coming within their knowledge.

A VESSEL arrived at the end of last week at King's Lynn from the East Indies, and another came up the Thames from Penang on Monday last, with cases of scurvy on board. Four seamen belonging to the latter ship were severely affected, and were at once admitted into the Seamen's Hospital; and the Marine Department of the Board of Trade have directed an official inquiry to be made into the circumstances attending the outbreak.

THE mortality in London last week amounted to 1517 deaths, including 19 from measles, 97 from scarlet fever, 12 from diphtheria, 21 from whooping-cough, 41 from different forms of fever, and 18 from diarrhœa. The declension in the fatality from scarlet fever which we recorded in our issue last week is happily maintained.

THE number of non-collegiate students at present in Cambridge is 71. Of this number there are 13 preparing for the medical profession. It is not sufficiently known that under the new scheme a medical student may pursue his studies at the University at the smallest possible cost. Over and above the fees payable for instruction in special subjects, scientific and medical, the payments for the whole course ending in the degree do not necessarily exceed £30, and the cost of board, lodging, and the like, may, by a frugal student, be kept under 30s. a week.

SURGEON-MAJOR SAMUEL ROWE, C.M.G., who distinguished himself in the late campaign on the Gold Coast, and was chosen by Captain Sir J. Glover as his chief of the staff, has been appointed by Her Majesty's Government as Special Commissioner to the native chiefs of the Protectorate, and leaves England shortly in that capacity by the steam-ship *Ethiopia*.

ACCORDING to a paragraph in the daily journals, which has evidently been published on authority, it would seem that recruiting for the army has been very actively and satisfactorily going on of late, and that a marked improvement has taken place in the number as well as the quality of the recruits, their youth notwithstanding.

WE understand that the publication of the *Journal of Psychological Medicine*, which was edited by the late Dr. Forbes Winslow for sixteen years, is about to be resumed under the editorship of his son, Dr. Lyttleton S. Forbes Winslow. The journal is, however, to appear twice annually, and not quarterly, as before.

THE long-expected Local Government Board inquiry, to be held at the request of the Richmond Vestry, as to a new water-supply for the town, has been adjourned till some time next month, in consequence of the temporary absence from this country of the chairman of the Southwark and Vauxhall Water Company.

DR. J. D. M. COGHILL, late superintendent of the convict establishments, Ceylon, has been appointed by the Right Hon. the Secretary of State for the Colonies, medical inspector of the coffee districts, Ceylon, and will assume the duties of the appointment at once.

THE Hospital Saturday collections in Wolverhampton, on the 17th inst., amounted to £1284 3s. 9d. This sum, it is expected, will be considerably increased when the whole of the returns shall have been received.

WE are enabled to state that the Local Government Board is engaged in preparing a Bill to deal with the question of the purification of rivers.

CHARLES R. STRATON, L.R.C.P., has been elected Mayor of Wilton, Salisbury.

THE CORONERSHIP.

WE feel sure that the profession generally will participate in the gratification we feel at the return of Dr. Hardwicke as coroner for Central Middlesex. Dr. Hardwicke has been elected by a majority of 300 odd votes over his legal opponent, Mr. Boulton. The principle for which we have so long and earnestly contended—viz., the paramount necessity of appointing medical men coroners—has again been triumphantly vindicated. We sincerely congratulate Dr. Hardwicke and the freeholders of Central Middlesex on the result of the contest.

REPORT
OF
The Lancet Sanitary Commission
ON
THE DRAINAGE AND GENERAL SANITARY CONDITION OF OXFORD.

EARLY in the present year we drew attention to the extensive system of drainage which the sanitary authorities at Oxford were engaged on; and we expressed a hope that, when completed, they would reap a reward in the improved healthiness of the town and its consequently increased prosperity. The scheme is still in progress; but, owing to many complaints having reached us of the "abominable stench" pervading the town and the general ill-health of the inhabitants, we have thought it our duty to inquire more particularly into the state of the drainage and the sanitary condition of the city, and lay before the public the result of our inquiry in a report which we hope will describe the true position of affairs, without exaggeration or sensational comment.

The town of Oxford lies in a hollow basin, surrounded on all sides by hills of no great elevation. The soil consists of a bed of drift gravel, of variable thickness, resting on clay. The physical obstacles presented to the sanitary engineer are therefore great, as he has to deal with a waterlogged soil, and also the difficulty of obtaining a sufficient fall at the outlet of the sewers if the drainage be carried any great distance from the town. The scheme that has been adopted by the sanitary authorities appears to have been selected with judgment, and with especial view to the difficulties above mentioned. The scheme is briefly this: The sewage of the city of Oxford and most of its suburbs is to be collected by an extensive system of drains, ventilated by means of open street ventilators, which will converge to a point, as two intercepting main sewers, in Merton-field, near the end of the broad walk. From this point the outfall sewer commences, passing under the Cherwell by means of cast-iron tubes; it will then traverse several fields, in the direction of Christ Church cricket-ground, to the Occupation-road, leading to Astons Eyott, and thence crossing the meadows till it reaches Iffley-mill-road; the size of the sewer in this part of its course will be 4 ft. by 2 ft. 8 in. From Iffley-mill-road to the pumping station at Sandford, a distance of 838 yards, the dimensions of the sewer will be 4 ft. 6 in. by 3 ft. Here, at a distance of nearly three miles and a half from Oxford, the sewage will be withdrawn by means of pumping machinery, and distributed over the land laid out for irrigation. It is proposed, however, as some time may elapse before the permanent pumping machinery can be erected and the land laid out for irrigation, to obtain the consent of the Thames conservators for a temporary outlet into the river. If such consent is granted, it should be only for a limited time. In addition to these works for the disposal of the sewage, new drains are being built for the removal of the surface water, which will be entirely separate from the sewers. Of this extensive scheme only a small portion is yet completed. The work of constructing the principal intercepting sewers and bringing the branch sewers into communication with them has been vigorously prosecuted. But, owing to the difficulty of obtaining permission to irrigate the land in the neighbourhood of the County Lunatic Asylum at Sandford, the contracts for the construction of the outfall sewer have not yet been signed. In the meantime the sewage from the new sewers flows into the Cherwell by the old outfall at Magdalen-bridge. It is in respect to the new sewer which passes down the High-

street and receives at Magdalen Schools the sewage of Park Town and Holywell, that the present complaints are made. And the cause is not difficult to explain. The High-street drain, passing by Magdalen College, though it opens into the old outfall, lies 3½ ft. below it; consequently the sewage has to ascend this height before it can find an exit, and, as the fall of the drain near its termination is not great, the sewage, owing to the hindrance offered at its exit, stagnates and completely chokes it for a considerable distance. In this way the escape of sewer gas is impossible, and this pent-back gas makes its way out in considerable quantities into the streets by means of the open ventilators, and causes the "abominable stench" complained of. The remedy for this state of things is obvious: 1. The discharge of sewage at the outlet ought to be facilitated by means of pumping. 2. Additional flushing power should be brought to bear on this portion of the sewer. It struck us as very probable that, owing to the divergence of the surface water and the comparatively small number of houses as yet connected with the new system, the means of flushing were inadequate, and that very likely the sewage was beginning to deposit itself in the interior of the drains. 3. We recommend the number of street ventilators to be increased; one ventilator for every hundred yards is not sufficient for so important a drain, and, now the pressure of sewer gas is so great within, it will diffuse so rapidly as to become perceptible to the nose before it can be sufficiently diluted by the atmosphere. By increasing the ventilators the pressure within the drain will be lessened, and consequently the rate of diffusion will be less, and the dilution greater.

We found nothing in the state of the drains generally which would lead us to think the present evil would be permanent. Indeed, when the whole system is completed, it will, we are confident, entirely disappear. In the meantime, however, the above suggestions ought to be carried out immediately to relieve the inhabitants of a disagreeable if not dangerous nuisance. We hear that some difficulty may present itself to carrying out the first and second suggestions, as the Magdalen College authorities will not allow the town to pour out more sewage into the Cherwell, by the old outfall, than had passed out previously. Though this may be a sufficient reason for not completing the connexion of many new houses with the sewer in question, it cannot apply to the relief of an overcharged drain. It seems to us that the Magdalen authorities are chiefly interested in this matter, since the drain in question passes close to their college, and in its present condition must be injurious to them. They therefore would be the first to experience the benefit of its being relieved of its contents.

It will be seen by the foregoing remarks that the drainage of Oxford is in a transition state, that large sewers have been completed within the town before a sufficient outfall has been obtained, and, as a consequence, these large drains are becoming gradually choked. We do not think the sanitary authorities are to blame, nor do we see, taking all the circumstances into consideration, how they could have acted otherwise. Had they waited till they got their outfall, they must have waited till now before they could ever have commenced their scheme. As it is, they have already made considerable progress, and by following out the suggestions we have given, they may reduce the temporary evils to a minimum.

Among the communications we received, before our visit, respecting the sanitary condition of Oxford, we were surprised that no notice had been taken of the water-supply. Early in our investigation we were convinced that this was the worst feature in the sanitary condition of the town.

Oxford, like many other cities, is supplied with water from wells, and by a Water Company. The wells are chiefly found in the poorer parishes and suburbs, and in close connexion with the cesspools, which are still in existence in these districts—indeed, the two may be considered contiguous. The Water Company derives its supply from two sources: the smallest, from Hincksey brook, which conveys water taken from the river some distance above Oxford, and is received into a small filter-bed before passing to the general reservoir; the largest supply, however, comes from the springs, which open directly into the reservoir. This reservoir is a large gravel-pit dug out by the Great Western Railway Company when building their line, the gravel being used as ballast. At a certain depth springs burst out and the pit filled, forming a considerable lake, which the Water Company at once utilised. These springs derive their water from the river Thames, which is adjacent, the water filtering through a bed of drift gravel. On this bed of intervening gravel is built the extensive suburb of Hincksey, which is utterly undrained; so that the water-supply is exposed at its very origin to pollution from cesspools and other abominations. This water is pumped directly out of the reservoir and distributed to the town without any attempt at filtration! The following analysis by the county analyst, Mr. Donkin, speaks for itself.

"*Analysis of sample of city water collected (near intake-pipe) Oct. 7th*, 1873.—Rather turbid, with many small floating particles, including a considerable number of various kinds of living entomostraca; has a slight brownish-yellow tint in a stratum of ten inches depth.

Total solids	31·2	parts in 100,000
Free ammonia	0·006	" "
Albuminoid ammonia ...	0·016	" "
Chlorine	1·81	" "
Nitrogen as nitrates ...	0·092	" "

The quality of the water has considerably improved since the summer. It ought to be good and wholesome after filtration. In its present state it is at least twice as bad as the average of London waters."

We agree with Mr. Donkin that a considerable improvement might be effected by filtration, but the water can never be *safe* so long as the drainage of Hincksey remains as it is. The importation of a case of typhoid into that suburb would lead to the most disastrous consequences to the town and University. We do not hesitate to say that such a state of things is a scandal and a disgrace to the town; and if the sanitary authorities have been aware of this condition of things, they have incurred a grave responsibility in neglecting to provide Hincksey with proper and suitable drainage. It is not enough to say that Hincksey will be provided for in the new scheme. The efficient drainage of this suburb is of the first importance to the health of Oxford; and not a day ought to be lost before the work is commenced.

Another point we must notice bearing on the sanitary condition of the town is the state of the numerous small suburbs everywhere springing up around the city. We paid a visit to New Osney, a suburb situate on a branch of the river which forms a head water to the Osney mill. We entered a house facing this water, and the landlady informed us that her house was one of a few that entered the main drainage. She obtained her water from the Company, but had no supply for her closet, which she was obliged to flush by pouring water down by hand. The house was literally surrounded with privies and cesspools. The landlady told us she had attempted to get water for domestic purposes by digging a well in the garden; at two feet depth the water oozed up and filled the pit, but was so foul and fetid that it was unfit for use. This house was a favourable specimen compared with others in the neighbourhood. The new suburb springing up in the Botley-road is even worse; the houses there are built upon ground raised above flood-level by street refuse. It has no water-supply except what it draws from its polluted wells or directly from the river; and we learn by the engineer's report that its drainage cannot be brought into the general scheme as, owing to its position on a dead flat, it would cause the whole line of outfall to be placed several feet lower in level, and thereby entail an additional cost so large as to make it impracticable. When the river is full the water oozes up through the gardens and enters the houses; at all times the tenements are more or less damp. In spite of all these disadvantages, and the repeated remonstrances of the medical officer of health, the number of houses is continually increasing. We see in the extension of these low-lying suburbs an element of considerable danger to the health of Oxford. It is in such haunts as these that fever becomes endemic, and is subsequently exported.

At the present moment the town does not appear to be in an unhealthy state. The deaths from zymotic diseases from the commencement of the year to the end of the first week in November amount to 74, as compared with 99 for the whole year of 1873. The deaths from typhoid are as 4 to 11, from measles as 13 to 1, erysipelas as 13 to 4, diarrhœa as 24 to 41. Of the 41 deaths from this cause in 1873, no less than 30 occurred in the third quarter of the year. The outbreak of erysipelas that has recently occurred

in the infirmary, and among some of the inhabitants of the town, is deserving of a special report. Nothing is known with respect to the causes that lead to such outbreaks, and it would be interesting, by tracing the history of the individual cases, to see if in any way it could be connected with the disturbed condition of the drainage of the town.

In concluding this report, we would say that when the new scheme of drainage is completed, the water-supply freed from all possible sources of contamination, and the building of new suburbs in unwholesome and low-lying districts restrained, Oxford should become one of the healthiest and safest towns in the kingdom.

MEDICAL CERTIFICATION OF CAUSES OF DEATH.

WE have been favoured by the Registrar-General with an early specimen copy of a new Form of Certificate designed by him for the use of registered medical practitioners in returning the causes of death of their patients, as required by the Births and Deaths Registration Act of 1874. The new Forms, like those in present use, will be issued in books; but in point of design, appearance, size, convenience, and general adaptability, the new books, in their rich dark-brown covers, will have an enormous superiority over their little dingy blue predecessors.

From a memorandum inside the cover we observe that, prior to finally settling the Form, it was submitted by the Registrar-General for criticism to the General Medical Council, to the Presidents of the Colleges of Physicians and Surgeons, and to the Master of the Society of Apothecaries; and that "these eminent authorities" have signified their approval of it. Thus fortified by the support of the heads of the medical profession, the Registrar-General no doubt feels pretty sure that the new certificate will be generally accepted by the profession as an improvement upon the old Form.

The new Form runs thus:—

MEDICAL CERTIFICATE OF THE CAUSE OF DEATH.

[*To be given by the medical attendant to the person whose duty it is to give information of the death to the registrar.*]

I hereby certify that I attended ....., whose age was stated to be .....; that I last saw h..... on the ..... day of ....., 18.....; that ...he died* ..... on the ..... day of ....., 18....., at .....; and that to the best of my knowledge and belief the cause of h..... death was as hereunder written.

Cause of Death.	Duration of Disease.			
	Years.	Months.	Days.	Hours.
(*a*) Primary				
(*b*) Secondary.....				
(*c*)				

Witness my hand, this ..... day of ....., 18....

Signature .....

Registered Qualification .....

Residence .....

* Should the medical attendant not feel justified in taking upon himself the responsibility of certifying the *fact* of death, he may here insert the words "*as I am informed.*"

At the foot of the Form is a caution against the use of it for any purpose whatever except that of delivering it to the registrar; and persons to whom the certificates are given by practitioners will incur a penalty of £2 if they neglect to deliver such certificates to the registrars.

It will be seen that the Registrar-General has wisely conceded in this certificate those points which we have repeatedly urged* against the certificate now in use, and which we knew rendered it obnoxious to the profession. The practitioner, on getting a book of the new Forms, will find that he is no longer required to certify as of his own knowledge the age of the deceased; and in cases where, although he was in attendance during the last illness, he was not present at the death, and is therefore dependent upon the information of others as to the death having occurred at a particular time, the insertion by him in the Form of the words "as I am informed" will relieve him from what he has hitherto felt in many instances to be a grievous strain upon his conscience. Of course it is assumed that, in accepting the testimony of any person as to the death having taken place, the practitioner has reasonable grounds for believing such testimony to be credible. We would advise, for his own safety, that if he has the least reason to doubt the occurrence of the death as reported, he should at once make further inquiry before issuing his certificate. The wishes of the profession have been met in the fairest and most satisfactory manner by the new Form, and it behoves us, therefore, to take care that the latitude which it allows is not strained in the direction of undue laxity.

The distribution of the new Books of Forms to registered medical practitioners is required by the Act of 1874 to be made through the sub-district registrars of births and deaths, who are themselves supplied from head-quarters. We do not know if it is contemplated to make a complete issue in time for the commencement of the compulsory system of certification on 1st January next; the interval is very short for so considerable an undertaking as that of getting upwards of 15,000 of these books despatched all over the country, especially as the number of *registered* practitioners in the various sub-districts is most likely not very accurately known to the Registrar-General. A strong effort ought, however, to be made to accomplish this, for it strikes us as extremely undesirable that practitioners should be working under the new compulsory system with the old, rigid, objectionable form of certificate. It would, no doubt, facilitate the distribution if registered practitioners who desire to have the new Forms in use, took an early opportunity of sending in a written application to the registrars of the sub-districts in which they reside; in this way the demand could be met as it arose.

The registrars are instructed, in conformity with the provisions of the Act of 1874, to accept certificates from none but *registered* medical practitioners, and the new books are consequently designed to be issued exclusively for their use. Whether, if a book falls into the hands of an unregistered (though perchance a qualified) practitioner, and he issues certificates therefrom, any proceedings are to be taken in the matter, does not appear; but we suspect not, as the Act makes no provision for that contingency. We understand that an opinion has been recently expressed by the General Medical Council to the effect that irregular practitioners who give certificates for registration purposes should be prosecuted by the Registrar-General or by the State; but until Parliament decrees the illegality of such certificates, it is premature to talk of prosecutions. Of course, if an unregistered practitioner uses one of the new forms of certificate, and thereon after his signature fills up the line reserved for the "registered qualification," he undoubtedly commits an offence; but it is an offence against the Medical and not against the Registration Act, and the conclusion seems rather that the Medical Council would be deemed to be the proper authority to take proceedings against the offender.

In the introductory pages of the new certificate-book

* See THE LANCET of 27th June, 1868, and of 6th June, 1874.

much useful information will be found. For example, the section (20) of the Act of 1874 which imposes the obligation to certify upon the registered practitioner is quoted entire, with the reminder that an infraction of the obligation will entail a penalty of £2. Further, there are useful suggestions as to the mode in which causes of death should be returned, and a list of diseases of most common occurrence, compiled from the College of Physicians' Nomenclature, is given with the object of inducing practitioners to adopt that nomenclature as far as is practicable. And, finally, on the back of each certificate, the persons qualified by law to be informants for the registration of a death are set forth, in order that a practitioner may know whether, on an application being made to him for a certificate, the applicant is a person to whom he is justified under the section in giving it. The General Medical Council seems to have been under the impression that the duty was imposed upon the medical attendant of *sending* the certificate to the registrar or to some other person; but this is a mistake, as the Act simply requires him to *give* the certificate when applied for. We fear the Council is not well informed when it expresses a preference for the Scotch over the English system of medical certification in respect of the delivery of the certificate. In Scotland, the certificate must be sent by the medical attendant—we beg pardon, the expression in the Scotch Act is "medical *person*"—to the registrar within seven days, under a penalty of 40s. for default, and if default is made, then the registrar issues a requisition to the "medical person" requiring him to certify the cause of death within three days. Our information is, that competent judges are not of opinion that this plan works so admirably as the Medical Council have been led to suppose. The English system of registration requires that every entry in the register shall be begun and completed at the same time, so as to preserve the strict unity of all parts of the entry as a legal document. But we understand that in Scotland, owing to the peculiar arrangements about medical certificates, the death-register is frequently incomplete for varying lengths of time. And clearly the English system, of the two, entails the less trouble on the medical attendant.

With the three forms of medical certificate for the three divisions of the United Kingdom now before us, and with the Acts regulating the certification also at hand, we have not a moment's hesitation in giving the preference to the new English Form and procedure over those of Scotland and Ireland; and unless there are difficulties in the way of which we are ignorant, we should say decidedly that the English system ought to be adopted uniformly for the whole kingdom.

Correspondence.

"Audi alteram partem."

PYÆMIA.

To the Editor of THE LANCET.

SIR,—Dr. MOXON, in his interesting lecture on Pyæmia, published in THE LANCET November 14th, says that he has not yet found bacteria in the matter from a hitherto unopened abscess in a living person; and also in another place, that if pyæmia occur without any primary sore we are deprived of the embolic theory because there is no showing any source for the emboli. During the last eighteen months I have examined the pus from a considerable number of abscesses occurring in connexion with septicæmia, erysipelas, and necrosis immediately after they were opened, and have at present in one only seen bacteria. This was a case of acute necrosis of the tibia, and the pus was completely free from putrefactive odour.

CASE 1.—M. C——, aged three months, was admitted into University College Hospital on May 19th, 1874. After passing through a very critical stage, in which lung symptoms were very prominent, the child recovered.

In this case the bacteria were in very large numbers and of a very definite shape; delicate chains of granules always arranged in multiples of two. I had the advantage of submitting the specimen to Dr. Burdon Sanderson, who gives me leave to say that he was convinced of the authenticity of the observation. I have also drawn them accurately to scale.

Side by side with this it may be well to record two cases of the same sort, in which distinct pyæmic abscesses were developed in the viscera before that in connexion with the local disease was opened.

CASE 2.—A. C——, aged four years, admitted May 20th, 1871, with acute necrosis of the tibia. The onset of the disease was on May 17th, and the child died on May 22nd, five hours after the abscess connected with the tibia was opened. At the autopsy, extensive pericarditis, and as many as a dozen distinct pyæmic abscesses in the lungs, were found. No other joint or viscus was affected, and no wound or sore could be discovered after most careful search, but the posterior tibial vein was filled with an old decolorised and breaking-down clot.

CASE 3.—M. A. G——, aged three years, admitted Jan. 6th, 1874, with acute necrosis of the tibia. The disease commenced Jan. 1st, and the child died Jan. 9th. The abscess was unopened. At the post-mortem there were recent right pleurisy and two unmistakable pyæmic abscesses in the middle lobe of the right lung. There was also extensive pericarditis, some endocarditis, and an abscess in the septum between the ventricles. In this case, also, no open wound could be discovered, but here no clotting was found in the veins of the leg.

It is at least interesting that in this disease, which is one of the very few in which secondary *embolic* abscesses occur, organisms should have been distinctly seen in the pus of the original abscess in the first case. It seems probable that in others there is an "infective" material produced at the part where local changes are going on, and that thus, in acute necrosis, there is really a source for the emboli (as was certainly the condition of the second case), even though there be no wound communicating with the external air.

I am, Sir, yours faithfully,

RICKMAN J. GODLEE.

Henrietta-street, Cavendish-square, Nov. 17th, 1874.

ACCOMMODATION FOR FEVER PATIENTS OF THE MIDDLE CLASS.

To the Editor of THE LANCET.

SIR,—In your issue of November 7th, I observe an article entitled "Infectious Diseases and Middle-class Homes," wherein you call attention to the want of an institution in London to which members of the families of middle-class and professional people can be conveyed when suffering from any form of contagious fever. This want has been supplied by the Committee of the London Fever Hospital for upwards of two years, though comparatively few have taken advantage of it. A portion of the hospital has been divided into rooms for the exclusive use of private patients. The rooms are well appointed and airy, their occupants are each attended by a separate nurse, they are provided with every comfort, and the dietary is unrestricted, save from a medical point of view. They obtain, in fact, their board, lodging, washing, nursing, and medical attendance for the comparatively small sum of £3 3s. weekly.

Moreover the private medical adviser of the patient need not lose sight of him on account of his admission to the hospital, as Dr. Broadbent and his colleague, Dr. Cayley, have, with their usual courtesy, expressed their willingness to meet the medical attendants of such patients in consultation at the hospital.

I should add that the hospital possesses an invalid carriage, which is sent immediately on the receipt of a telegram or message, to convey the patient to the hospital.

Irrespective of the advantages thus afforded to the family of the patient, and to the patient himself, the general adoption of this system of isolation of infectious diseases would limit most effectually the spread of an epidemic. The wisdom of such a course is daily becoming more recognised, and must, sooner or later, be the subject of sanitary legislation.

I am, Sir, yours, &c.,

F. A. MAHOMED,
Resident Medical Officer.

London Fever Hospital,
Liverpool-road, N., Nov. 17th, 1874.

PROFESSOR ESMARCH'S TRIANGULAR BANDAGE.

To the Editor of THE LANCET.

SIR,—Without in the least disputing Professor Esmarch's claim to originality in the application of the triangular bandage during the late Franco-German war, as noticed in THE LANCET of the 7th instant, I beg to remark that I saw the same bandage used as a field dressing thirty-two years ago by Dr. J. A. Fraser, now Inspector-General of Hospitals on half-pay.

Dr. Fraser was at that time (1842) assistant-surgeon in charge of the expedition under Captain Smith, 27th Regiment, which marched from the Cape frontier and occupied Natal, after a vigorous resistance from the insurgent boers; and I quite recollect his calling my attention to the handkerchief bandage, and to the readiness with which it could be applied to wounds on almost all parts of the body.

I remain, Sir, your obedient servant,

J. M. GRANT, M.D.,
Deputy Surgeon-General.

Curragh Camp, November 13th, 1874.

Obituary.

DEPUTY SURG.-GENERAL ALEX. BARCLAY, M.D.

To a large body of medical and other officers, no less than to that inner circle of closer friends and acquaintances by which most men are surrounded, the news of Dr. Barclay's death must have caused unfeigned regret and much surprise. He was at the time of his decease the head of the Statistical Branch of the Medical Department. A very little intercourse with the late officer was sufficient to create an impression in his favour, for he was in every way a fine manly fellow—courteous, outspoken, honest; in fact, a gentleman in the true and not the conventional sense of the term. But to those who knew him well—to those who sought, as so many did, the aid of his strong and sound judgment—to those who were in the habit of applying for his friendly sympathy, of listening to his talk, graphic, hearty, and humorous as it so often was—to those, in short, who knew what was in the man, his loss will be keenly felt. The writer of this notice was privileged to know him well, and to feel that the employment of exaggerated statements in regard to his character, now that he is dead, would have been repugnant to his honest nature. Still it is but to report him truly to say that he was in every way a large man—big of frame, large and generous of heart, sound and capacious of intellect. Spite of his great size of late years, he must have been enormously strong and active when young, and he was always cool, self-possessed, and courageous. He was an enthusiastic and successful sportsman, and to the last he retained his love of fly-fishing. In his house were the trophies of his gun, in the shape of the skins and heads of tigers and wild beasts, and he had the reputation in India of being a splendid shot. Dr. Barclay was a handsome man; a massive head and face indicative of power, with a large dark eye, full of expression and force. He was genial by nature, had seen a great deal, read a great deal, and could talk really well on most subjects. He was open-handed and hospitable, and his professional knowledge was large, and had been well thought out by himself, so that his judgment was always sound, practical, and sagacious. With such qualities he could not fail to be a great favourite, and he was best liked by those who knew him best, for they knew his honesty of purpose, and his hatred of all cant and self-seeking under a disguised name.

Dr. Barclay had been ill for some months, and the nature of his disease was for some time extremely obscure, and rendered still more difficult of detection by his enormous bulk. It commenced with a series of severe rigors, which mimicked intermittent fever; but very early in his case the suspicion arose that these were but the expression of some deep-seated suppuration. His condition caused much anxiety, while for a long time there were no local symptoms whatever to indicate the nature and seat of his disease. Subsequently, however, there were symptoms pointing to the neighbourhood of the prostate gland, and a very small abscess was evacuated by Sir William Fergusson's aid; but this local affection was disproportionately small to account for the long and severe constitutional disturbance which had preceded it. After a very brief temporary rally, fresh constitutional symptoms of a febrile character followed, and all were agreed as to the probability of there being some pelvic cellulitis present. Some pus was once discharged by the bowel, and ultimately,—after severe pains referable to the cutaneous extremities of some of the nerves of the lumbar plexus, and the formation of an abscess in the left sac of the tunica vaginalis testis,—an obscure swelling appeared in the neighbourhood of the right inguinal region. As he was going from bad to worse, it was determined, with his own entire concurrence, to cut down and explore this part with the view of opening any abscess that might be found. This was done—and the operatian was one of much difficulty, requiring the exercise of no little surgical skill—by his friend Dr. Fayrer, with, what was hoped at the time, a good prospect of success, for a large abscess was evacuated. His progress was very satisfactory until the second day after the operation, when, quite suddenly, on the morning of the 13th inst., he died of symptoms of cardiac syncope.

A subsequent post-mortem examination revealed that an abscess, with pelvic cellulitis, had taken place in the space of the recto-vesical fold of pelvic fascia, with two small perforations into the perpendicular portion of the rectum at this part, and localised peritonitis tying down the bowel to the posterior wall of the bladder. The abscess in the prostate was small, and communicated with that of the recto-vesical space behind; and the matter had taken an upward course, owing to the fact that less impediment to its progress existed in that direction, from the absence of adhesions there.

Dr. Barclay was fifty-three years of age at the time of his death, and he leaves a widow and several children to mourn his loss. He was sedulously watched and attended by his many professional friends, and notably by Dr. Wane, Dr. Paul (of Madras), Dr. McNalty, and others; and Sir Wm. Fergusson, Mr. Henry Smith, and ultimately, as we have said, Dr. Fayrer, gave him the benefit of their professional aid.

Deputy Surgeon-General Dr. Barclay took part in the Caffre war of 1846–47, and in that of 1850–53. He accompanied the Saugor Field Division, under Sir George Whittock, during the years 1858 and '59, and was present during the march from Bangalore to Calpee, which occupied from December, 1857, to June, 1858, the whole distance traversed being 1200 miles. The regiment in which he served lost no men until Nagode was passed in the month of May, 1858. Here dysentery became prevalent, and on entering the plains of Bundelcund sunstroke attacked and killed many of the men. At the foot of the fatal Ghaut of Bisramgunge, which took three days to pass, eleven men and two officers of the 43rd were buried. After the operations against Kirwee, Dr. Barclay was attacked with dysentery, followed by diarrhœa, which lasted for three months; but, although much reduced in flesh (2 st.), he refused to leave his post, and was not for one day away from duty. He was subsequently engaged in the operations in the neighbourhood of Calpee, and was for several months in the field during the end of 1858 and beginning of 1859, until the 43rd reached Saugor in the March of the latter year. Here he enjoyed comparative quiet until the end of the year, when the mutiny was quelled.

EDWARD SMITH, M.D., F.R.S.

BY the death of Dr. Edward Smith, on the 16th inst., the profession has lost one of its most indefatigable workers and writers. He was a man of altogether exceptional character. As a worker in detail his powers were most remarkable, and his early researches on respiration and urea and

the urinary secretion (which won for him election as a Fellow of the Royal Society), as well as his early dietetic researches, were carried out under conditions of which the physical restraints imposed upon himself, in order to their successful prosecution, were not the least noteworthy. He had a rare faculty of systematising his knowledge, and this, combined with great facility as a writer, prompted so free a use of his pen, particularly in his later years, that his more important early scientific researches and official labours have been almost lost sight of among his recent slighter productions. His writings are so numerous and so varied that the list is too formidable to be given here, and we must be content with indicating the principal subjects to which they were devoted.

First in order were his physiological researches on respiration and the urine, of which the results are given in the Transactions of the Royal Society, and which led to his highest scientific distinction. Next came much elaborate work on dietetics, which formed the foundation, so to speak, of the greater portion of his subsequent official and general writings—the writings by which he was most familiarly known to the public. His first important public work on this subject, and the starting-point, it may be said, of his official career, was a report to the Privy Council on the food of the lowest-fed classes in the kingdom, published in the Appendix to Mr. Simon's sixth report. This report led to Dr. Smith's being consulted by the Government on Poor-law and prison dietaries, and to his subsequent appointment as Medical Officer of the Poor-law Board. Previous to accepting this official appointment, Dr. Smith had, while pursuing his physiological researches, not been unmindful of the claims of practical medicine, and while acting as assistant physician to the Hospital for Consumption at Brompton, he published a work on the early and remediable stages of consumption, as well as several papers on the phenomena of the respiration and pulse, and the use of certain remedies in phthisis. He also published about this time a work "On Health and Disease as influenced by Daily and Seasonal and other Cyclical Changes in the Human System," which must be regarded as one of his happiest literary efforts.

His official career as Medical Officer of the Poor-law Board was chiefly distinguished by his management of Poor-law dietaries. These he succeeded in placing upon a scientifically practical basis. He did much work also in reforming hygienically the structural arrangements of workhouses and workhouse infirmaries. On one point, however, that relating to cubic space, he adopted views differing from those accepted by the profession, and enunciated by the committee appointed by the Poor-law Board to consider the question. This divergence of opinion provoked much professional discussion at the time, but the Board, in its regulations on the subject, mainly adopted the opinions of Dr. Smith. Dr. Smith's official reports on various matters connected with his office, published as Parliamentary papers, must be numerous. The most important of these are, perhaps, the reports which followed upon, and were rendered necessary by, the reports of THE LANCET Sanitary Commission on Workhouses—namely, a "Report on Metropolitan Workhouse Infirmaries and Sick Wards" (1866), and a "Report on the Care and Treatment of the Sick Poor in Provincial Workhouses" (1867).

When, in 1871, the Poor-law Board was merged in the then newly created Local Government Board, he was transferred to the medical department with the title of assistant medical officer for Poor-law purposes. To the last his pen was active. In 1873 he published a work on "Foods," (International Scientific Series); "A Manual for Medical Officers of Health"; "A Handbook for Inspectors of Nuisances"; and a work on the health of schools. His works on food and dietetics and schools will long be referred to. His works on the duties of medical officers of health and inspectors of nuisances were unworthy of his reputation; the subjects, suggested, no doubt, by the passing of the Public Health Act, 1872, were obviously unfamiliar to him.

DR. JAMES D. HENWOOD.

WE record with regret the sudden death, from apoplexy, on the 9th inst., of Dr. James Dimble Henwood, at the age of sixty-two. He was the son of a medical practitioner in Cornwall, and was educated at the Helston Grammar-school, under Derwent Coleridge. After graduating in Edinburgh in 1838, he visited some of the principal cities of Europe and remained some time in Rome, where he acquired a taste for the fine arts, which was a source of pure delight and happiness to him through the rest of his life. He commenced practice in Camberwell twenty years ago, and during the whole of that time never took a single day's holiday. His professional skill, unremitting attention, and urbanity of manner, endeared him greatly to his patients, whilst his honourable dealings and rectitude of conduct won for him the universal respect of his medical brethren. He was attended by Dr. Wilks, of Guy's Hospital, Dr. Elliott, of Denmark-hill, and Dr. Wise. The latter gentleman had lately joined him as a partner, after having practised for many years with great success at Castletown.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on Monday, Tuesday, and Wednesday last:—

Anderson, William S., M.B. Glasg., Middlesborough.
Barlow, John, Manchester.
Brummitt, Robert, L.S.A., Banbury, Oxon.
Buckell, Ernest H., Chichester.
Bull, William H., Hammersmith.
Callcott, James T., Newcastle-on-Tyne.
Carey, John T., Guernsey.
Chadwick, Alfred, Manchester.
Cobb, Robert, Rochester.
Collet, Golding Bird, Worthing.
Derington, John M., Leicester.
Eastall, Henry F., L.S.A., Blackheath.
Ferrier, John C., Dublin.
Fox, Richard H., L.S.A., Stoke Newington.
Gibb, Robert C., Jamaica.
Gill, Edmund E., L.R.C.P. Edin., Torquay.
Hart, Philip Neville, M.B., Catton Vicarage, Norwich.
Herapath, Charles K. C., Bristol.
Johnston, Wingate K., Anerley, Surrey.
Joseph, Sidney W. J., St. Leonards.
Kebbell, William, Brighton.
Lamb, William, L.R.C.P. Lond., Northampton.
M'Creery, John A., M.D., New York.
Mackenzie, John K., L.R.C.P. Edin., Bristol.
Maples, Reginald, Spalding, Lincolnshire.
Potts, Edward, L.S.A., Birmingham.
Powell, Harold M., L.S.A., Wandsworth, Surrey.
Poynder, George F., Brandon, Norfolk.
Roe, Frederic L., Eccles, Lancashire.
Rossiter, George F., L.S.A., Taunton.
Rygate, Brougham R., L.S.A., Cannon-street-road.
Sandiford, Robert F., L.R.C.P. Edin., New Ormond-street.
Scatliff, John M. E., M.B., Brighton.
Smith, Herbert N., L.R.C.P. Lond., Brighton.
Squire, William, L.S.A., Hanwell.
Stelfox, John B., Leigh, Lancashire.
Stewart, William R. H., Weymouth-street.
Swift, William J. C., Ely, Cambridge-shire.
Symonds, Horatio P., L.S.A., Oxford.
Taylor, Daniel P. H., Sierra Leone.
Thomas, George H. W., Stoke, Plymouth.
Tomlin, Robert F., L.S.A., Devonport.
Treharne, John L., L.S.A., Weston-super-Mare.
Treves, Edward, King Edward's-road.
Whitworth, Edward, St. Agnes, Cornwall.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Nov. 12th:—

Baker, Benjamin Russell, Andover, Hants.
Beaumont, William Marden, South Binsop, Oxford.
Bevan, Adolphus, Rye-lane, Peckham.
Cooke, Robert, Newport, Monmouthshire.
Gwatkin, Owen, Grand-parade, Brighton.
Rossiter, George Frederick, Taunton.
Thompson, Harold, Beaumont-street, Oxford,

The following gentlemen passed the Primary Professional Examination on the same day:—

Bruce, Peter, Middlesex Hospital.
Gonsalves, Manoel Martinho, St. Mary's Hospital.

PRESENTATION.—Mr. Edward B. Evans, the assistant-surgeon of the Swansea police force, was during the last week presented with an elegant and costly timepiece by the members of the borough force, on the occasion of his marriage.

DUBLIN HOSPITAL SUNDAY.—One hundred and forty churches have joined this movement, and on last Sunday, the 15th inst., collections took place in a considerable number for this charitable purpose. Returns have been furnished of the collections in about seventy of these churches, which have amounted to £2600.

Medical Appointments.

ALDERTON, T. G., L.R.C.P.L., M.R.C.S.E., has been appointed a House-Surgeon to the West London Hospital, Hammersmith, vice Webber, resigned.

BARBOUR, Mr. J. M., has been appointed Fever Assistant at the Glasgow Royal Infirmary.

BEAMISH, R. T., M.D., has been appointed Medical Officer for the Derwent District of the Weardale Union, Durham, vice Arnison, resigned.

BRAMWELL, B., M.D., has been appointed Lecturer on Pathology at the University of Durham College of Medicine, Newcastle-on-Tyne.

BRYDEN, R. F., L.R.C.P.Ed., has been appointed Parochial Medical Officer for Kilmonivaig, and for Boleskine and Abertarff, vice Ferguson, resigned.

CLAYTON, N. G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Superintendent Medical Officer of Health and a Sanitary Officer for the Galway Rural Sanitary District.

CONSTABLE, J., M.D., C.M., has been appointed Certifying Factory Surgeon for Leuchars, Fifeshire.

COX, A. G., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Misterton District of the Beaminster Union, Dorsetshire; also Medical Officer of Health for the Misterton Sub-district of the Beaminster Rural Sanitary District: £10 per annum; acreage 5031; population 1470.

CURTIS, J. G., L.R.C.P.Ed., has been appointed Physician to the Cork Model School and Munster Model Farm.

CUTHBERT, A., M.D., has been appointed Superintendent Medical Officer of Health and a Sanitary Officer for the Londonderry Rural Sanitary District.

DAVIES-COLLEY, J. N. C., M.B., F.R.C.S.E., has been appointed Visiting Surgeon to the Seamen's Hospital, Greenwich, vice Rendle, resigned.

DAWSON, Mr. J., has been appointed a House-Physician to the Glasgow Royal Infirmary.

DOBSON, R. J., L.R.C.S.I., has been appointed Superintendent Medical Officer of Health and a Sanitary Officer for the Mohill Rural Sanitary District.

DORMAN, E. B., M.D., has been appointed Sanitary Officer for the Kinsale Urban Sanitary District.

DUFFE, B. L., L.C.M., has been appointed a House-Physician to the Glasgow Royal Infirmary.

EAST, G. E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Swinefleet District of the Goole Union, Yorkshire, vice Cass, deceased.

EDMUNDSON, J., M.D., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Resident Medical Superintendent of the Enniscorthy District Lunatic Asylum, vice Shiell, deceased.

FRASER, A. D., M.B., C.M., has been appointed Medical Officer to the Shincliffe Colliery, Durham, vice Le Sage, resigned.

FRASER, Dr. A., has been appointed Lecturer on Midwifery at the University of Aberdeen, during the present session, in the absence, through ill-health, of Professor Inglis.

GOULD, H., M.R.C.S.E., has been appointed Medical Officer of Health for the Northfleet Urban Sanitary District: £20 per annum; acreage 4313; population 8480.

GREEN, C. J., M.R.C.S.E., has been appointed Resident Medical Officer to the Preston Amalgamated Friendly Societies' Provident Dispensary, vice Louie, resigned.

GREENFIELD, W. S., M.B., M.R.C.P., has been appointed Demonstrator of Morbid Anatomy at St. Thomas's Hospital; also, Lecturer on Morbid Anatomy and Practical Pathology to St. Thomas's Hospital Medical School.

HAMILTON, Mr. J., has been appointed a House-Physician to the Glasgow Royal Infirmary.

HARTCOP, Dr. F., of Elberfeld, has been appointed Resident Medical Officer to the German Hospital, Dalston, vice Dr. Carl Faber.

HAYES, P. A., L.R.C.P.Ed., L.R.C.S.I., has been appointed Junior House-Surgeon at the Royal Free Hospital, vice Le Mottée, whose appointment has expired.

HEARN, G. M., L.K.Q.C.P.I., has been appointed Superintendent Medical Officer of Health and a Sanitary Officer for the Bawnboy Rural Sanitary District.

HERMAN, G. E., M.R.C.S., L.S.A., has been appointed Resident Medical Officer to the Bethnal-green Workhouse Infirmary.

HERRING, J. F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Lower District of the Bulith Union, and Public Vaccinator for the whole Union, vice Jones, resigned.

HORNIBROOK, W. B., M.D., has been appointed Superintendent Medical Officer of Health for the Kinsale Urban Sanitary District.

JAMISON, D., M.D., has been appointed Sanitary Officer for the Newtownards Urban Sanitary District.

LIVINGSTONE, W. O., C.M., M.B., has been appointed a House-Surgeon to the Glasgow Royal Infirmary.

LLOYD, R. H., M.R.C.S.E., has been appointed Medical Officer to the St. Mary, Lambeth, Infirmary, Prince's-road, vice Bullen, who retires on a pension.

M'BRIDE, A., L.R.C.P.Ed., has been appointed Superintendent Medical Officer of Health for the Newry Urban Sanitary District.

M'CORKINDALE, D., C.M., M.B., has been appointed a House-Surgeon to the Glasgow Royal Infirmary.

MARTIN, W. B., L.R.C.S.I., has been appointed Superintendent Medical Officer of Health for the Newtownards Urban Sanitary District.

MUIR, Mr. M. M. P., has been appointed Assistant-Lecturer and Demonstrator on Chemistry at Owens College, Manchester, vice Dittmar, appointed Professor of Chemistry at Anderson's University, Glasgow.

MUIR, W., C.M., M.B., has been appointed a House-Surgeon to the Glasgow Royal Infirmary.

NESHAM, T. C., M.D., has been appointed Lecturer on Midwifery at the University of Durham College of Medicine, Newcastle-on-Tyne.

O'NEILL, P. L., L.K.Q.C.P.I., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Workhouse Infirmary and Fever Hospital of the Athy Union, Co. Kildare, vice Kynsey, resigned, and since deceased.

PINNOCK, R. D., C.M., M.B., has been appointed a House-Surgeon to the Glasgow Royal Infirmary.

ROSS, A., M.D., has been appointed Superintendent Medical Officer of Health and Sanitary Officer for the Baliymena Urban Sanitary District.

ROUSE, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed a Surgeon to the Bideford Infirmary and Dispensary, vice Cox, resigned.

RUSSELL, P. C., M.B., has been appointed Sanitary Officer for the Lurgan Urban Sanitary District.

SABERTON, F. W., M.R.C.S.E., L.S.A., has been appointed House-Surgeon to the Burton-on-Trent Infirmary.

SAMPSON, F. C., L.R.C.P.Ed., has been appointed Superintendent Medical Officer of Health for the Scariff Rural Sanitary District.

SCOTT, W. J., M.B., C.M., has been appointed an Assistant-Surgeon to the Western Infirmary, Glasgow.

SHAW, W., M.D., has been appointed Superintendent Medical Officer of Health for the Lurgan Urban Sanitary District.

SMITH, Mr. D. T., has been appointed a House-Physician to the Glasgow Royal Infirmary.

SNELL, G., M.R.C.S.E., L.R.C.P.Ed., has been appointed House-Surgeon and Registrar to the Victoria Hospital for Sick Children, Chelsea, vice Brigham, resigned.

SPEARING, A., M.D., has been appointed Superintendent Medical Officer of Health for the Antrim Rural Sanitary District.

SUTCLIFFE, Mr. W. H., has been appointed a House-Physician to the Glasgow Royal Infirmary.

TAGERT, R. M., M.D., has been appointed Superintendent Medical Officer of Health for the Carrickmacross Rural Sanitary District.

TELFORD, Mr. J. C., has been appointed a House-Surgeon to the Glasgow Royal Infirmary.

THOMPSON, J., M.D., F.R.C.S.E., has been appointed a Surgeon to the Bideford Infirmary and Dispensary, vice King, deceased.

THOMSON, W. G., M.D., has been appointed Certifying Factory Surgeon for Carluke.

TICEHURST, A. B., M.R.C.S.E., has been appointed a Surgeon to the East Sussex, Hastings, and St. Leonard's Infirmary, vice Turner, resigned.

TOLBERTON, W. R., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for No. 4 District of the Malmesbury Union, vice Betts, resigned; also Certifying Factory Surgeon for Sherston.

TOWNSEND, R. H., M.B., has been appointed Superintendent Medical Officer of Health for the Enniskillen Rural Sanitary District.

WALL, J., M.D., has been appointed Superintendent Medical Officer of Health for the Cork Rural Sanitary District.

WEBB, J. S., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Marshwood District of the Beaminster Union, Dorsetshire; also Medical Officer of Health for the Marshwood Sub-district of the Beaminster Rural Sanitary District: £10 per annum; acreage 4877; population 949.

WHITMORE, W. T., M.R.C.S.E., has been appointed a House-Surgeon and Chloroformist to the West London Hospital, Hammersmith, vice Alderton.

YORKE, C. F., L.K.Q.C.P.I., has been appointed Superintendent Medical Officer of Health for the Granard Rural Sanitary District.

Births, Marriages, and Deaths.

BIRTHS.

BAKER.—On the 17th inst., at Wimpole-street, the wife of W. M. Baker, F.R.C.S.E., of a daughter.

FOSTER.—On the 10th ult., at Water-valley, Trelawney, Jamaica, the wife of Henry B. Foster, M.B., M.R.C.S.L., of a son.

HOOPER.—On the 13th inst., at High-street, Wandsworth, the wife of J. H. Hooper, M.D., prematurely, of a daughter.

MAHOMED.—On the 11th inst., at Park-crescent, Brighton, the wife of F. A. Mahomed, M.R.C.P.L., of the London Fever Hospital, of a son.

MOORE.—On the 7th inst., at Museum-street, Ipswich, the wife of H. G. Moore, L.R.C.P.L., of a daughter.

MARRIAGES.

BRIDGMAN—WARDLE.—On the 11th inst., at St. Mark's, Winshill, Henry Edward Bridgman, M.R.C.S., of Burton-on-Trent, to Margaret, only daughter of the late Francis Wardle, Esq., of Highfield.

EVANS—THOMAS.—On the 11th inst., at St. James's Church, Swansea, Edward Beynon Evans, L.R.C.P.Ed., M.R.C.S.E., of Swansea, to Mary, second daughter of the late David Thomas, Esq., of Heathfield, near Swansea.

GREENHILL—CARMICHAEL.—On the 22nd ult., at the Garrison Chapel, St. George's, Bermuda, Joseph Ridge Greenhill, F.R.C.S.E., Army Medical Department, to Adriana, eldest daughter of the late William Scott Carmichael, F.R.C.S.Ed., of Edinburgh.

JACKSON—WAN-VESTRANT.—On the 17th inst., at St. Mary's, Newington, J. B. Jackson, L.R.C.P., &c., of Birmingham, to Angela Mariana, youngest daughter of the late Ottaviano Wan-Vestrant, of Rome.—No Cards.

LUPTON—DEWE.—On the 12th inst., at St. Helen's, Abingdon, Harry Lupton, L.R.C.P.L., M.R.C.S.E., of Stratford-on-Avon, to Clara Maria, daughter of the late John Dewe, Esq., of Benson, Oxon, and Abindon, Berks.—No Cards.

MARCH—MARCH.—On the 12th inst., at the Parish Church, Wartnaby, Leicestershire, John March, M.D., of New Wandsworth, Surrey, to Elizabeth, only daughter of the late George March, Gent., of Wartnaby House, Melton Mowbray.

DEATHS.

DUTTON.—On the 10th inst., James Dutton, M.R.C.S.E., of Theresa-place, Hammersmith, aged 56.

HAWKINS.—On the 8th inst., J. S. Hawkins, M.R.C.S.E., of Tredegar-place, Bow, aged 37.

INCE.—On the 9th ult., at Rawalpindi, Punjab, India, Samuel John, the dearly loved child of Surgeon-Major John Ince, M.D., H.M. Bengal Army, aged 11 months.

LANPHIER.—On the 15th inst., at Alford, Hugh Somerville, the loved child of R. Lanphier, M.B., aged 9 years.

NICOL.—On the 10th inst, John Nicol, M.D., of New-cross (late Physician to St. John's Hospital, La Paz, Peru, and Surgeon-General to the Medical Tribunal of that city), aged 76.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Sir Samuel W. Baker: The Rifle and Hound in Ceylon. Vol. III.
Messrs. Foster and Balfour: The Elements of Embryology.
Stillé's Therapeutics and Materia Medica.
Transactions of the Pathological Society of London.
Dr. Davis: Clinical Lectures.
Mr. C. F. Maunder: On Removal of Tumour of Portions of the Lower Jaw.
Dr. Cohen: Croup in its Relations to Tracheotomy.
Frey's Histology.
Mr. Jardine: The Elements of Psychology.
Mr. W. Spottiswoode, F.R.S.: Polarisation of Light.
Steiner's Diseases of Children.
Mr. John White: Te Rou; or, the Maori at Home.
Poe's Works. Vol. I.
C. J. Michôd: A Guide to Athletic Training.
Mrs. Lankester's Talks about Health.
Mr. E. Lawson: On Dancing, and its Refining Influence on Social Life.
S. J. Salter: Dental Pathology and Surgery.

Notes, Short Comments, and Answers to Correspondents.

ANOTHER METHOD OF HÆMOSTASIS.

DR. VANZETTI, the well-known surgeon of Padua, has just published a pamphlet, wherein he advises the following procedure to stop troublesome bleeding:—Two vulsella should be thrust on either side of the bottom of the wound giving blood, and deep enough to compress in their hooks the vessel which has been wounded. The hæmorrhage may be stopped by drawing the lips of the wound asunder, just as is done for the removal of an ordinary tumour. This operation should be kept up for twenty-four, thirty, or forty hours, according to the size of the artery; and a thread, either elastic or not, should be passed under the seat of the hæmorrhage. The latter will then stop. Prof. Vanzetti was led to adopt this method by the phenomena observed in the following case:—A countryman was brought to the hospital for a wound of the palm of the hand, whence attacks of hæmorrhage had occurred for the last twenty-eight days. The part was freely laid open, and, after great trouble, the two ends of the artery were tied. In order to forestall any subsequent hæmorrhage, the operator kept the lips of the wound apart by means of two sharp double hooks placed deeply, and kept steady by means of threads tied to the handles of the hooks, and stretched over the dorsum of the hand. On the second day bleeding came on again. As deligation was now out of the question, M. Vanzetti pushed the hook, which had loosened its hold at the point where blood was issuing, somewhat deeper, and bleeding ceased. Fresh hæmorrhage occurred the same day on the opposite side; the same method was adopted with the second hook, and, the latter having been sufficiently stretched, no more loss of blood was observed. The hooks were removed forty-eight hours after this; no bleeding took place, and the wound healed perfectly. In two other cases—one of wound of the palm, and the other of injury to the forearm—the same method was successful without recourse being had to deligation. M. Vanzetti thinks that the hooks compress the artery in their concavity, and that the compression is increased by their tension. The holding asunder of the tissues around also contributes to the same end. Young practitioners, surgeons in the country, and persons incompetent to perform operations have here a ready method of arresting hæmorrhage, far more reliable than ice, styptics, and bandaging. The author has given the name of "uncipressione" to this mode of operating, from the Italian "unci," a hook.

M. C., (Bitterne.)—Address the Secretary of the Society, 53, Berners-street, Oxford-street, W.

APOMORPHIA.

To the Editor of THE LANCET.

SIR,—An editorial comment on this subject in a late number of your journal has recalled to my memory two cases which occurred in my practice recently. The first was some months since, and happened in this wise. After some days' absence from home I had occasion to use a subcutaneous injection of morphia, and I injected ten drops of a solution which had been used a few days before I left, with the usual results; but on this occasion, a few minutes after the injection, the patient said, "I feel very sick," and in the next minute was so, and for some time he was greatly prostrated, and almost fainted. At the time I attributed his feelings to nervous alarm due to the needle puncture. Soon after I used the same solution to relieve a muscular pain and most severe depression; vomiting and syncope came on soon after. The appearance of the patient, a strong man, was alarming. However, he soon recovered after a good dose of brandy and sal volatile, and, save that he felt low the next day, suffered no subsequent trouble. On examining the solution I had used, I found it cloudy and with what appeared a sort of fungus on the inside of the bottle. Since then I have used the solution of the Appendix of the British Pharmacopœia, with no similar results. The solution used was of the acetate in water only; and I cannot help thinking that, by keeping, some apomorphia must have formed, and thus the vomiting, syncope, and consequent depression were caused by its use.

Perhaps some of your readers may be able to throw some light on the subject. I have not seen any notice of such a change in the solution of morphia mentioned in any of the medical papers.

Yours truly,

Leamington, November, 1874. JAMES THOMPSON, M.D.

CHOLERA AND LUMBRICI.

SOME correspondence on the connexion between cholera and worms has lately appeared in our able contemporary, the *Indian Medical Gazette*. Mr. Strahan, Army Surgeon, reports the following case:—During the cholera epidemic at Peshawur in 1872, a sepoy was admitted into hospital with violent purging and vomiting. Astringents were given, and the diarrhœa was checked. The vomiting, however, continued urgent, and the man complained of spasmodic pains in the gastric region. He became much worse, and sank into a state of collapse and unconsciousness. On examining his stools minutely, Mr. Strahan detected several small round worms. Turpentine was administered, and a large number of the worms were passed. On the following day the patient vomited a large round worm twelve inches in length, after which the vomiting ceased, and all the grave symptoms disappeared. Soon after he was discharged perfectly cured.

THE MANCHESTER CORONER AND THE TOWN COUNCIL.

To the Editor of THE LANCET.

SIR,—The article in your journal of the 7th inst., headed "The Coroner for Manchester and the Council," has evidently been written in strange ignorance of the facts of the case on which you comment. If you had taken the trouble to read the report of the case as brought before the Recorder on the 30th of October last, and reported in the Manchester papers of the following day, you would have seen that the accuracy of the statement made by Sir Joseph Heron, that "the inquest was held in the face of distinct medical testimony of the highest character that the death was owing to heart disease," was indisputably proved. Dr. Wilkinson, in giving evidence before the Recorder, stated that "he had known Dr. J. Ogden Fletcher for upwards of twenty-five years, and was aware that he was suffering from heart disease. He had grown very stout, and had every appearance of the disease which he (witness) had mentioned. On the 14th of September witness was called in to see Dr. O. Fletcher, and when he arrived at the house he found him raised up in bed. He made two gasps, and died. That was about half-past nine in the evening. The heart had ceased to act when witness arrived. The cause of death was syncope. In accordance with witness's opinion of the cause of death he gave the certificate produced. It was signed by witness and by the brother of the deceased gentleman, Dr. S. Fletcher. The same evening witness met Police-Sergeant Burroughs, of the D division of the City Police Force, and mentioned to him the cause of death of Dr. Fletcher. The officer said he should be obliged to report the case to the coroner. Witness replied, 'I don't think there will be any occasion for an inquest; but I have signed a certificate, and you can show that to Mr. Herford.'" "Public opinion and the Recorder's opinion" do not "concur in vindicating the coroner," as you anticipated. The Recorder disallowed the fee upon the ground that the inquest on my late brother was wholly unnecessary. I submit that you, as Editor of an important medical journal, ought to be sure of the facts before you venture to cast reflections upon the senior physician of the Manchester Infirmary, as you do in the article complained of, by stating that "we cannot too strongly express our disapproval of any doctor acting in such a manner," adding that "this distinct medical testimony of the highest character was that of a doctor who had never attended the deceased, and did not see him till after death." Dr. Wilkinson had known my late brother, and seen him almost daily, upwards of twenty-five years. He knew him to suffer severely from asthma, bronchitis, and probable heart disease, and saw him breathe after the pulse had ceased. In Manchester Dr. Wilkinson's conduct requires no justification or defence. I also, who had even a better knowledge of all these facts, signed the same certificate. In addition, Mr. FOX, a surgeon, and an old friend of my brother, and who was with him for some hours and up to twenty minutes before his death, and during that time listened to the heart's sounds. Mr. FOX attended at the coroner's office with the certificate, and, being unable to see the coroner, explained to his officer all the facts. Understanding that the coroner had intimated his intention to hold the inquest, I also saw him, when he persisted in his determination, and threatened to commit me to prison because I told him that an inquest was altogether useless and unnecessary. The inquest was held, and what took place? My brother's housekeeper with myself, who was summoned, and Mr. FOX, were examined. No post-mortem examination took place, nor was any such examination even suggested, and I leave you to judge as to the sufficiency of the inquiry if there had been the smallest possible doubt as to the cause of death. It is true that subsequently, in order, I suppose, to defend himself from the charge of holding this unnecessary inquest, the coroner did, in a letter addressed to the Mayor, dare to insinuate that my late brother committed suicide in order to obtain for his family a paltry sum of £3300, being the total of the five policies of insurance to which he alluded, and, I much regret to see, to which you also so pointedly allude in your article. As regards the coroner, I may add that of the existence of such policies he knew nothing until long after the inquest was held. In Manchester, where the coroner is well known, I did not think it necessary in any way to reply or to notice his cruel and most unjust insinuation, and am only, in justice to the memory of my late brother, induced to do so now when I find that you have lent your influence to propagate the insinuation in your journal.

Yours very truly,

Manchester, Nov. 11th, 1874. J. SHEPHERD FLETCHER.

*** We of course insert the above, which gives a different version of the facts from that given by the coroner.—ED. L.

B.—We do not see that there would be any impropriety in making an arrangement by which the dissatisfied section of the men might pay our correspondent on the provident principle.

A. Z.—No.

BLUE GUMS AND LEAD-POISONING.

To the Editor of THE LANCET.

SIR,—Permit me to put the question to your numerous readers, Whether the blue line upon the margin of the gums, usually associated with lead-poisoning, in the absence of symptoms, colic, &c., occurring in an otherwise healthy person, can have any other origin? My conviction is that insidious "lead-poisoning" is much more prevalent than the public suppose.

I am, Sir, yours truly,

Sittingbourne, November, 1874. JOHN GRAYLING, M.D.

OVER DARWEN.

WE have received a local paper containing the report of a meeting of the Darwen Local Board, when a discussion ensued regarding the asserted numerical insufficiency of the present medical staff of this village-town. The clerk having addressed the medical men practising there as to the expediency of supplying any such deficiency, should it exist, received three letters in answer to his inquiries, which were not calculated to facilitate the formation of a conclusion, seeing that the writers were not at all of accord. We should have thought that there was plenty of work for an extra staff of medical men, and that a few men with a capacity for organisation and administration would have been invaluable. However, it would seem that the great pressure on the medical men was diminishing. After a good deal of irrelevant discussion, some of which was not calculated to exhibit the state of "professional feeling" in this fever-stricken place in its best light, the matter was brought to a close, as there was no motion before the meeting. It is satisfactory to learn, however, that the clerk stated his belief that the doctors were the most humane people under the sun, and that, so far as he had known them, they would go to cases indiscriminately. This declaration on his part was called forth by some remarks in a contrary direction.

Mrs. Phillips should consult a surgeon in her own neighbourhood.

CANCER OF THE HEART.

To the Editor of THE LANCET.

SIR,—A case of intra-thoracic cancer having been published by Dr. Charteris in a recent number of THE LANCET, I am reminded of a case of cancer of the heart which I saw a few years since, and which I was at the time very anxious to have published, but it has not appeared in any journal.

Nine years ago I was asked by Dr. Hawkins, who was then living in this town, to assist him at a post-mortem examination on a man who was about sixty years old, and whom I had never seen during life. Dr. Hawkins was under the impression that his patient had died of aneurism of the left subclavian artery; and when the body was stripped he showed me a tumour in the subclavian region, which he said had pulsated during the deceased's life, and which he supposed to be the aneurism. The thorax was opened in the usual way, and on trying to open the pericardium I found it to be inseparable from what I supposed to be the heart. I had considerable difficulty in cutting through it, and then found that what should have been the heart was completely replaced by a yellow mass of scirrhus. There was scarcely a trace of muscular tissue to be seen anywhere. The disease was not confined to the heart, but extended for about three inches along the great arteries. In fact, to describe the state of the parts briefly, all we found was a rough cast of a heart and of its principal arteries for a short distance, composed of scirrhus. The ventricles and auricles were extremely small, and there were but little traces of valves to be seen. It is most surprising how the person could have lived long enough for such a metamorphosis to have taken place. Of course the presumed aneurism of the subclavian was a tube of cancer.

I repeatedly urged Dr. Hawkins to publish notes of the case and of the post-mortem, and he promised to do so; but he died about two years afterwards, and the case remained unpublished.

I am, Sir, yours &c.,

King's Lynn, Nov. 10th, 1874. WALTER G. WALFORD.

CALIFORNIAN MEDICAL DEGREES.

Dr. A. P. Whittell, who is a graduate and holds the diploma of the Medical Department of the University of California, writes to inform us, *apropos* of an article which appeared in THE LANCET of October 24th, that "the present Medical Department of the University of California was, until recently, the Toland Medical College, which was founded in 1864 by Dr. H. H. Toland, of San Francisco, and some three years since was presented to the State by its founder, and converted into the Medical Department of the State University." Will Dr. Whittell also kindly inform us what period of study he underwent, and what was the nature of the examination for the degree which he holds?

Mr. W. Wallace.—53, Berners-street, Oxford-street.

INFANT MORTALITY.

To the Editor of THE LANCET.

SIR,—A friend has drawn my attention to an article in THE LANCET of Oct. 17th on "Infant Mortality," in which allusion is made to the discussion of that subject at the recent meeting of the Social Science Association in Glasgow. A remark of mine with regard to the character of the husbands of married women working in factories is quoted by you in a way which I suppose shows that it has been misunderstood by you, as it certainly was by the friend who pointed it out. I had first spoken of the evil and danger of legislative interference with the work of women, and then proceeded to show how unequally such legislation would operate in different parts of the country. I admitted that many women in the north of England continued to work in factories after they were married, without the actual compulsion of want; but I quoted Scotch friends to prove that such cases were comparatively rare in Glasgow and other Scotch manufacturing districts, and then I gave my own and others' experience in Belfast, that it is almost an unknown thing here for a married woman to go back to the factory if her husband is able or willing to support her, even in the humblest way. It was in that connexion I stated that "I had never met with an instance of a married woman working in a mill or factory whose husband was not either a helpless invalid or a hopeless drunkard." My audience at once drew the conclusion, which time did not permit me to do at any length—namely, that it would be intolerable cruelty to interfere with such women, and prevent them from earning the bread for themselves and children which their husbands were incapable of earning. It was the more easily understood, as the section had just before been reminded that there is no direct procedure at law by which a woman can oblige her husband to support her.

I am quite at one with you, as a close observer of the poor, in the views expressed in that article as to the *true* causes of infant mortality.

Yours &c.,

Belfast, Nov. 12th, 1874. ISABELLA M. S. TOD.

THE GUINEA-WORM IN RAJPOOTANA.

SURGEON-MAJOR W. J. MOORE, in a book lately published, gives some interesting information concerning the guinea-worm. Facts would seem to show that it becomes epidemic in the months of June, July, and August, and that neither geological nor meteorological peculiarities have any effect on its prevalence. Neither do ordinary barometric or thermometric conditions seem to exercise any control over the worm; for it is endemic in Bombay, where the atmosphere is moist, and the temperature fairly equable; and in Marwar, where hot winds blow as from a blast furnace, and where ice at night is often succeeded by a powerful sun in the day. Mr. Moore considers it proved that washing in slime or dirty water is not the cause of the introduction of the worm into the system, many people who do not wash in wells or tanks suffering to a considerable extent from the disease. He adds that if guinea-worms are really inhabitants of wells, light is not necessary for their existence; for some of the wells in the country are 300 feet deep, and quite dark at the bottom. The deduction is then made that the ova of guinea-worms exist on the ground or in the air, although perhaps they are called into activity by the monsoon rains.

Dr. Colas's paper shall be published next week.

PRURITUS VAGINÆ.

To the Editor of THE LANCET.

SIR,—I fear many of your readers will be misled by the recent communications upon this subject into the belief that pruritus is a very simple affair. Pruritus, instead of being an entity *per se*, is, in the majority of instances, but a very aggravating symptom of some obscure form of disease. It is, as Dr. Atthill observed, not unfrequently "symptomatic of malignant mischief"; but, as Dr. Chambers justly remarks, "it is not the general rule." There are few classes of cases so trying to deal with as those of pruritus, mainly on account of efforts being directed to relieve the effect without discovering and obviating the cause. In two instances recently under observation every remedy had been exhausted without avail, and it was only after a very careful examination that the presence of diabetes was detected. In other cases habitual constipation seemed to have been the exciting cause, and the pruritus disappeared entirely when the bowels had been induced to act more regularly. In early pregnancy pruritus is by no means an uncommon symptom, and in the majority of instances may readily be relieved by the employment of a lotion consisting of prussic acid and glycerate of borax, or by the infusion of ordinary tobacco. The presence of Pediculus ferox, or crab louse, is often an unsuspected cause, and it is in these cases that solutions of corrosive sublimate produce such good effects.

It would occupy too much of your space to mention even the various exciting causes of this distressing symptom. Suffice it to say that where, by patient investigation, the cause of it can be detected, some appropriate remedy can generally be suggested, and relief obtained.

Yours obediently,

Wimpole-street, Nov. 17th, 1874. ARTHUR W. EDIS.

AN INGENIOUS DRUGGIST.

WE recently had shown us a neat paper packet, properly sealed, and apparently containing one or more powders, from a chemist's, which was duly directed to a nobleman living in a West-end square. This, being supposed to contain medicaments ordered by his lordship's medical adviser, was carried to his chamber with all due dispatch; but upon being opened proved to contain nothing but an advertisement sheet, neatly folded, setting forth the virtues of certain "lozenges," "tooth paste," &c. &c. We give the inventor of this new dodge the "puff oblique" which he richly merits.

HOUSE-SURGEONS AND MATRONS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me space to bring before the notice of the profession a grievance which has long existed in numbers of our provincial hospitals: that is, the house-surgeons being compelled to have their meals with the matrons. This arrangement frequently leads to most unpleasant consequences. The matrons of the majority of the provincial hospitals are not what are conventionally termed ladies, and have generally no position beyond the walls of the hospital. The house-surgeon is always a member of a learned profession, and presumably a gentleman. It therefore certainly seems hard he should be compelled by committees constantly to associate, not only with the matron—a person usually in an entirely different rank of life to himself,—but also with her friends. This most unpleasant custom has of late been much objected to by house-surgeons, and I am happy to be able to state that in several hospitals it has been completely done away with. It not uncommonly happens that young women are appointed as matrons to hospitals, and I think it must be apparent to everyone that it is an injudicious thing in a committee to compel a house-surgeon to be *tête-à-tête* with a young "unprotected female" at least three times every day.

I am, Sir, your obedient servant,

November 7th, 1874. H.

Mr. West wishes us to correct a statement made in our report of his paper read at the Medico-Chirurgical Society on Tuesday, the 10th inst. The apparatus for the estimation of urea was the joint production of Dr. Russell and Mr. West, and was not devised by Mr. West alone, as stated in the report.

Radius.—The whole animal should be condemned.

THE LATE DR. LANKESTER.

To the Editor of THE LANCET.

SIR,—In your obituary notice of the late Dr. Lankester I find two inaccuracies, which, trifling as they are, should be set right. The first is that the name of the surgeon at Saffron Walden should be *Spurvin*, instead of "Spurgeon." Secondly, from your notice it seems also that Dr. Lankester resided at Saffron Walden prior to 1834, in which case my father could not have been beyond thirty-six years of age, since his death occurred in 1864, at the age of sixty-seven; therefore he could hardly be designated "the old surgeon."

I remain, Sir, yours truly,

THOMAS SPURGIN.

Henrietta-street, Cavendish-square, Nov. 17th, 1874.

CONVALESCENT HOSPITALS.

IN *The Times* of the 18th inst. the system of convalescent hospitals, whether as affiliated to, and in connexion with, large public hospitals, so as to maintain a continuity of treatment or not, or as separate and special institutions, to meet the requirements of different classes of society or different classes of disease, is discussed in an elaborate article, to which we may call attention, as well on account of the importance of the subject as on account of the writer's practical acquaintance with it. The question is one which cannot be disposed of in a few lines; but the criticism of the principles on which these establishments are governed, and on the methods of administration pursued, merits something more than a passing notice.

M.R.C.S.—Bentley's Botany; Roscoe's Chemistry; Wormell's Mechanics; Nicholson's Zoology; Wormell's Natural Philosophy.

A "LANCET" GENERAL INDEX.

To the Editor of THE LANCET.

SIR,—I have been an individual subscriber to THE LANCET from the commencement of the new series in 1844 up to the present time, and have the whole publication from 1823 to 1874 now in my library. I am, therefore, as a constant reader of THE LANCET for more than thirty years, very well able to judge of its usefulness, and I am of opinion that there is only one thing required to make it what it now nearly is—*invaluable*. I mean a General Index: an index that will include the contents of the whole of the publication since its first issue to the present day. There is such a great amount of valuable information in THE LANCET that it is quite out of the reach of those even who have the volumes at hand, simply on account of the great trouble and difficulty of finding anything (not knowing, e. g., in what particular volume, or even year, the subject they wish to look up is published), that the great necessity for a General Index must be apparent to you, Sir, and I think only needs to be suggested for the remedy to be put into action. The General Index, I have calculated, will make only a small volume, not half the size of the present half-yearly ones. It should, moreover, be published at a price that will induce all who possess a few volumes of THE LANCET to buy it, or else its object will partly fail—in fact, it must not be published so much as an object of profit as for the benefit of the numerous readers at home and abroad.

I remain, Sir, yours faithfully,

Hull, Nov. 10th, 1874. WILLIAM BANKS HAY, M.D.

*** We have to thank our correspondent for the suggestion. Possibly one of the medical publishers may entertain the proposal.—ED. L.

DR. HILLIARD'S "PEN VACCINATOR."

Dr. Hilliard has submitted to us an invention designed by him, and manufactured by Messrs. Maw, of Aldersgate-street, which he terms "pen vaccinator," and which sufficiently explains its purpose. It is of the shape of an ordinary pen, made of incorrodible metal; at one end are two small blades, uniting to a point, for taking up lymph, and at the other end a receptacle for capillary tubes. The instrument shuts up, and is light and portable. It deserves a trial at the hands of vaccinators.

THE ASHLEY FUND.

To the Editor of THE LANCET.

SIR,—I beg to thank you for having kindly inserted in your issue of Nov. 7th the appeal to the profession on behalf of the widow and ten children of the late Dr. W. H. Ashley. May I ask you to allow me to acknowledge the following additional contributions.

Sir Wm. Jenner, Bart. ...	£5	0	0	Dr. R. Payne Cotton ...	£1	1	0
Sir Wm. Gull, Bart.	5	0	0	J. Roche Lynch, Esq. ...	1	1	0
Sir J. Cordy Burrows... ...	2	2	0	Dr. Satchell, Kew	2	2	0
Dr. Quain	3	3	0	Dr. Ball, Hereford	2	2	0
J. Smith, Esq., Notting-hill	3	3	0	A Friend, by Dr. C. Swaby			
G. Tinson, Esq., Sandown .	2	2	0	Smith	5	0	0
A Friend	3	0	0	S. Smith, Esq., Reddings...	3	0	0
J. T. Penhall, Esq., St.				John S. Mould, Esq.	2	2	0
Leonards	5	5	0	Dr. E. Nash	5	5	0
F. Godfrey, Esq., Connah's				Mrs. J. C. Morice	1	1	0
Quay	0	10	6	Miss Frost	1	0	0
W. H. Manifold, Esq., Liver-				Miss E. Frost	1	0	0
pool	1	1	0	J. Marriott, Esq., Kilworth	2	2	0

I am, Sir, yours faithfully,

Chepstow-villas, Bayswater, Nov. 16th, 1874. ED. HART VINEN.

R. M. G.—We are not aware that there is any collected information on the subject. The modes of detecting individual dyes is described in "Crookes's Handbook of Dyeing," recently noticed in these pages. In most cases the injurious action is due to arsenic, which can be detected by the ordinary methods.

Mr. Hancock.—We never recommend a particular physician or surgeon.

AN UNUSUAL FORM OF POST-PARTUM HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—A short time ago I was called out to attend the wife of a farmer, who was being prematurely confined of her first child at the end of seven months. On examination I found one foot in the vagina, and soon after brought down the other. The labour proceeded, and the child, being small, was soon expelled. After birth the uterus retained its former dimensions, and labour continued. I naturally concluded it to be a twin birth. This I was fully persuaded of when on further examination I found the membranes presenting in the usual form at the entrance of the pelvis. They advanced steadily with each successive pain until they approached the outlet, when I ruptured them, and, to my astonishment, instead of the waters of a second fœtus as I had supposed, there was a great rush of hæmorrhage, which completely emptied the pelvis, and left the placenta still in utero, though in no way adherent. The patient suffered from the usual symptoms of excessive post-partum, was treated accordingly, and afterwards recovered.

Yours respectfully,

Dervock, co. Antrim, Nov. 3rd, 1874. W. G. W. THOMPSON.

MAGNETO-THERAPEUSIS.

Dr. Shettle, of Reading, who has contributed to medical literature more than one paper on the relations of electricity to vital action, has forwarded to us a couple of magnetic bands, consisting of a series of flat square pieces of magnetised steel between layers of wash-leather, which are meant to be worn on the body. Dr. Shettle says: "The mode in which these bands are supposed to act therapeutically is, by virtue of the polar forces of the fixed magnets acting on the molecules of matter circulating in the blood, and being deposited in the formation of new tissue. Under such influence the polarity of the matter circulating is rendered more active, and so its tendency to fulfil its work in the animal economy is increased; whilst at the same time the electric currents circulating in the nerves and muscles are rendered more active."

INHALERS FOR LUNG DISEASES.

To the Editor of THE LANCET.

SIR,—Inhalers for the treatment of lung diseases as made and sold in London have usually the mouth-piece connected with the body of the instrument by a piece of rubber tube. The vulcanised rubber of which these tubes are made is saturated with sulphur compounds arising from the vulcanising, and these are to most diseased lungs very irritating and annoying. It follows that every inhalation made through such tubes becomes contaminated, and the patient, ignorant of the condition of the tube, must necessarily attribute the irritation caused to the treatment itself. Formerly these vulcanised tubes, before being offered for sale, were purified by boiling with caustic alkali; but this method went into disuse many years ago. Certainly no tube should be connected with an inhaler that has not been treated in this way. The alkaline solution, after being boiled over the tubes and left to stand some hours on them, when poured off will be found to have a deep yellow colour, arising from the sulphur taken up. It is, however, a much better plan to dispense with the mouth-piece, and use a stout glass tube of large calibre connected to the inhaler with an inch or two of rubber tube to give it flexibility. Even this short piece, however, must be boiled with caustic, as it is quite capable of contaminating the air sufficiently to cause irritation, as may be easily proved by breathing with it from an empty inhaler.

Yours &c.,

November, 1874. L.

KOUMISS.

WHAT are we to think of this product of the fermentation of mare's milk or of the fermentation of milk from the ass or cow? From the year 1783, when John Grieve, physician to the Russian army, mentioned its invigorating properties, to 1874, when Labadie-Lagrave (*Gaz. Hebd.*, 1874), wrote an essay on koumiss, it has been extolled as a valuable tonic in debility, and especially in pulmonary consumption. The fact is that patients using a bottle a day were noticed to gain in weight, to sleep better, and lose their feverishness; but as to the ultimate results, it remains clear that they are not more favourable than those obtained by other means. The Oriental origin of this agent and the support of men of note have contributed to gain for koumiss a certain favour; but carefully administered sedatives, a mild climate, and cod-liver oil, are not likely to be displaced by this beverage, though it may perhaps in some cases have a momentary and beneficial influence.

TREATMENT OF GLEET.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "F.R.C.S.E.," I should recommend the passing of a bougie smeared with olive oil or zinc ointment twice a week. The diet allowed should be liberal; but if the stimulants give rise to a purulent discharge (which would be more advantageous than otherwise), discontinue them. If this should fail, apply a blister to the sacrum, perineum, or under side of penis. It will be as well for "F.R.C.S.E." to be prepared against the possible contingency of the patient's acquiescence in the popular notion, that a long-standing gleet is cured by intercourse with a healthy female, inasmuch as such conduct can only perpetuate the mischief.

Yours faithfully,

Enfield, Nov. 17th, 1874. M.R.C.S.E.

To the Editor of THE LANCET.

SIR,—"F.R.C.S.'s" patient, who is the subject of gleet, has probably one or more strictures in the course of the urethra. Let your correspondent discontinue injections, and try dilatation with flexible bougies two or three times a week, using one size of bougie twice, and then passing to a larger. With patience he will at length be able to pass into the bladder as large an instrument as can be inserted into the meatus, and he should continue to use this instrument twice or thrice a week until the discharge ceases. I have recently in this manner cured myself of a troublesome gleet.

Yours &c.,

November, 1874. A BACHELOR SURGEON.

BOVINE SURGERY.

THE following interesting paragraph appeared in a late number of a provincial newspaper:—

"A young cow on the farm of Mr. Wilson, in Borrowdale, Cumberland, recently broke her leg. It was amputated, and a wooden leg supplied, and she is now walking about and doing well."

Mr. G. Sauder, (Jamaica.)—The objection raised by our correspondent to the process is by no means new, and has not been overlooked by the distinguished surgeon mentioned.

Dr. Seldner's paper shall receive attention.

A CARD.

"Dr. James Robertson, registered Physician and Surgeon (lately Medical Missionary, Old Calabar), begs to intimate that he has begun practice in Biggar and neighbourhood, and will give his best attention to any calls with which he may be favoured. Present address—The Camb, Biggar."

MORTALITY AFTER CHILDBIRTH.

To the Editor of THE LANCET.

SIR,—I enclose my experience in midwifery practice during the last ten years.

Cases attended, 2300, out of which number there have been 16 deaths—viz.: Puerperal fever, 4; peritonitis, 2; mania, 1; pyæmia, 2; syncope from hæmorrhage, 3; carditis, 2 (death in both cases 4 days after delivery, the patients both having previously suffered attacks of acute rheumatism); cholera, 1 (in 1866, the patient being in a state of collapse during the whole labour, 12 hours, and died 2 hours after delivery); bronchitis, 1 (10 days after delivery). There were in these 2300 cases: Footlings, 5; arm, 5; shoulder, 5; placenta prævia, 4; breech, 23; face, 10; funis and vertex, 4; funis and hands, 1; hand and face, 1; hydrocephaloid, 2; convulsions, 3; post-partum hæmorrhage, 32; and twins in 26 cases. Interference required as follows: Turning, 18; forceps, 48; craniotomy, 3; loop, 12.

I remain, Sir, your obedient servant,

Hastings, Nov. 14th, 1874. CHAS. ASHENDEN, M.R.C.S.

ERRATUM.—In our descriptive article last week on the new wing of the London Hospital, it should have been said that Mr. Barry (not the late Sir Charles Barry, but his son) is the architect, and all modifications in the original plans have been made under his superintendence.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Rutherford, Edinburgh; Sir Francis Knowles; Mr. Erichsen, London; Dr. Vinen, London; Dr. Lionel Beale, London; Dr. Broadbent, London; Dr. Bland; Dr. Hamilton, Chatham; Dr. G. Jones, Liverpool; Mr. North, Nottingham; Mr. Smith, Sittingbourne; Mr. Sander, Jamaica; Mr. Townsend; Mr. Richardson, Longton; Mr. Buckley, High Wycombe; Dr. Ralfe, London; Mr. Pitts; Mr. Turnicliffe, Newent; Rev. R. B. Somerset, Cambridge; Dr. Imray; Mr. Hermon, London; Mr. Wood, Maidstone; Dr. Fletcher, Manchester; Mr. Ashenden, Hastings; Dr. Diver, Portsmouth; M. Decroix, Paris; Dr. Leith Adams; Mr. Jeffrey, London; Mr. Heaton; Surgeon Robert Turner, R.N.; Mr. Maynard, Wisbeach; Dr. Whitmore, London; Mr. R. Ford Hammill, Bridgwater; Mr. Leigh, Liverpool; Mr. G. F. Brown, London; Mr. Cuff, Peterafield; Mr. Phillips, Rotherham; Mr. Boyes, Hastings; Dr. Bucknill, Hillmarton Hall; Mr. J. Beal, London; Dr. R. J. Lee, London; Dr. Maunsell, Dublin; Dr. Edis, London; Mr. Wood, Denham; Mr. Walmsley, Manchester; Mr. Lawson, Enfield; Mr. Saberton, Blaenavon; Mr. Spurgin, London; Dr. Bastian, London; Dr. Dowse, London; Mr. G. Turner, Portsmouth; Mr. Wallace; Mr. Mahomed, London; Mr. Pinnock, Glasgow; Mr. Evans, London; Mr. Hancock, London; Dr. Gowers, London; Mrs. Phillips; Dr. Seidner, London; Dr. Stables, Reading; Dr. Rugg, London; Mr. Godlee, London; Mr. Bryan, Leicester; Mr. Grant, Maidstone; Dr. Buchanan, Glasgow; Mr. Shirtliff, Kingston; Miss Tibbits, London; Mr. Wyatt, Herne Hill; Dr. Jefferies; Messrs. Porteous Brothers, Glasgow; Mr. Blackburn, London; Mr. Lownds, Walker-on-Tyne; Mr. Gant, Hastings; Dr. Taylor, Peurith; Mr. Ingpen, London; Dr. Rowe, Portsmouth; Mr. Gaffney, London; Mr. Lucas, Cambridge; Mr. Kerby, London; Mr. Lilley, Bridgwater; Dr. Long, Dalston; Mr. Thomas, Maesteg; Dr. MacGown, Millport; Dr. Denholme, Glasgow; Mr. Simcock, Scorrier; Mr. Ashe, Kensington; Mr. Blyth, Barnstaple; Mr. West, Kensington; Dr. Grant, Curragh; Mr. Feldmann, Dalston; Mr. Robinson, Pimlico; Miss Tod, Belfast; Mr. Lea, Philadelphia; Dr. Nevins, Liverpool; Dr. Clegg, Bacup; Messrs. Wilcox and Co., London; Mr. Atkin, Lochmalan; Dr. Hewson, Coton Hill; Messrs. Baillière and Tindall, London; Dr. Dolan; Dr. Allen, St. John's-wood; Dr. Colan, R.N.; M.R.C.S.; A Bachelor Surgeon; C. S. R.; The Secretary of the Society of Arts; The Director-General of the Navy Medical Department; Investigator; The Registrar-General, London; A. Z.; M. C., Bitterne; Chirurgicus; Enquirer, London; Radius; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Fothergill, Haswell; Mr. Marshall, Mitcham; Mr. Roberts, London; Mr. Bingham, Bristol; Dr. Roberts, Sheffield; Mr. Carey, Redditch; Col. Morison, Colchester; Mr. Weir, Burnley; Mr. Smith, Islington; Mr. Davis, London; Mr. Platt, Oldham; Dr. Collins, Ilchester; Mr. Clegg, Bacup; Mr. Wall, Wigan; Mr. Stonehouse, Horsforth; Mr. Robinson, Leamington; Mr. Pope, Tring; Mr. Alli, Southampton; Mr. Lanphier, Alford; Mr. Mumford, Ipswich; Mr. Bunning, Newcastle; Mr. Brown, Manchester; Mr. Thin, Edinburgh; Mr. Pottinger, Manchester; Mr. Ansell, Fenny Stratford; Mr. Bishop, Banbury; Messrs. Black and Leach, Bath; Mr. Skrimshire, Brynmawr; Mr. Dodgson, Rotherham; Dr. Hargett, Walkley; Dr. Buckell, Camelford; Mr. Griffiths, Hanley; Mr. Force, Exeter; Mr. Wylie, Belfast; Mr. Bevan, Hackney; Mr. Taylor, Lincoln; Mr. Digby, London; Mr. Pickering, Melton; Mr. Williams, Blaenavon; Dr. Stephenson, Fawley; Mr. Clegg, Epping; Mr. Noble, Kendal; Mr. Horgan, Mexborough; Mr. Tunmer, London; Dr. Jones, Aberavon; Dr. Macadam, Edinburgh; Mr. Jones, Dowlais; Mr. Duncan, Glasgow; Mr. Jones, Chester; Mr. Moreton, Tarvin; Messrs. Morris and Cooper, Ross; Mr. Tomson, Luton; Mr. Routh, Bedale; Mr. Mason, Whitby; Mr. Bond, West Bromwich; Dr. Farrar, Chatteris; Dr. Oliver, Redcar; Dr. Foster, Falmouth, Jamaica; Mr. Robinson, Denbigh; Mr. Bridgman, Burton-on-Trent; Mr. Massingham, Victoria-park; Mr. Hill, London; Mr. Crockett, Merthyr Tydvil; Mr. James, Aberavon; S. R., Great Grimsby.

Newcastle Daily Chronicle, East London Observer, Holloway Press, Liverpool Post, Manchester Guardian, Surrey Advertiser, Huddersfield Daily Chronicle, Cork Constitution, Daily Free Press, Macclesfield Advertiser, Welshman, Isle of Man Times, Carlisle Journal, Liverpool Daily Courier, and *City Review* have been received.

METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, Nov. 19TH, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radiation in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Nov. 13	29·80	N.W.	39	39	...	45	28	0·05	Overcast
„ 14	30·16	N.	36	38	...	45	32	...	Overcast
„ 16	29·67	WNW	42	45	...	56	39	0·22	Cloudy
„ 17	29·68	N.W.	42	44	...	51	40	0·09	Cloudy
„ 18	29·88	W.	50	51	...	56	41	0·11	Overcast
„ 19	29·80	WNW	47	50	...	...	45	0·02	Overcast

Medical Diary for the ensuing Week.

Monday, Nov. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON. — 8 P.M. Dr. Thorowgood, "On Gastric Vertigo." — Dr. Leonard Sedgwick, "On a Case of Pulmonary Extravasation."—Mr. T. S. Dowse: "Some points of Clinical and Pathological Interest in an Obscure Case of Blood-poisoning."

Tuesday, Nov. 24.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Mr. G. G. Gascoyen, "On Cases of Syphilitic Reinfection, with Remarks."

Wednesday, Nov. 25.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
HUNTERIAN SOCIETY.—8 P.M. Dr. Barnes will exhibit a Specimen of Solidified Fat drawn from a Cyst by the Aspirator. — Mr. Adams, "On a Case of Gunshot Wound of the Abdomen."—Dr. Daldy, "On Fever."

Thursday, Nov. 26.

ST. GEORGE'S HOSPITAL.—Operations 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Nov. 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. J. E. Ingpen, "On Personal Equation with reference to Microscopy."
CLINICAL SOCIETY OF LONDON. — 8½ P.M. Dr. Poore will exhibit a Patient with Paralysis of the Serratus Magnus Muscle.—Mr. Hulke: "Notes of a Case of Poisoning by Chloral." — Mr. H. Lee, "On a Case of Tumour removed by Elastic Ligature." — Dr. R. J. Lee: "Notes of a rare form of Cutaneous Disease in a Child."

Saturday, Nov. 28.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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